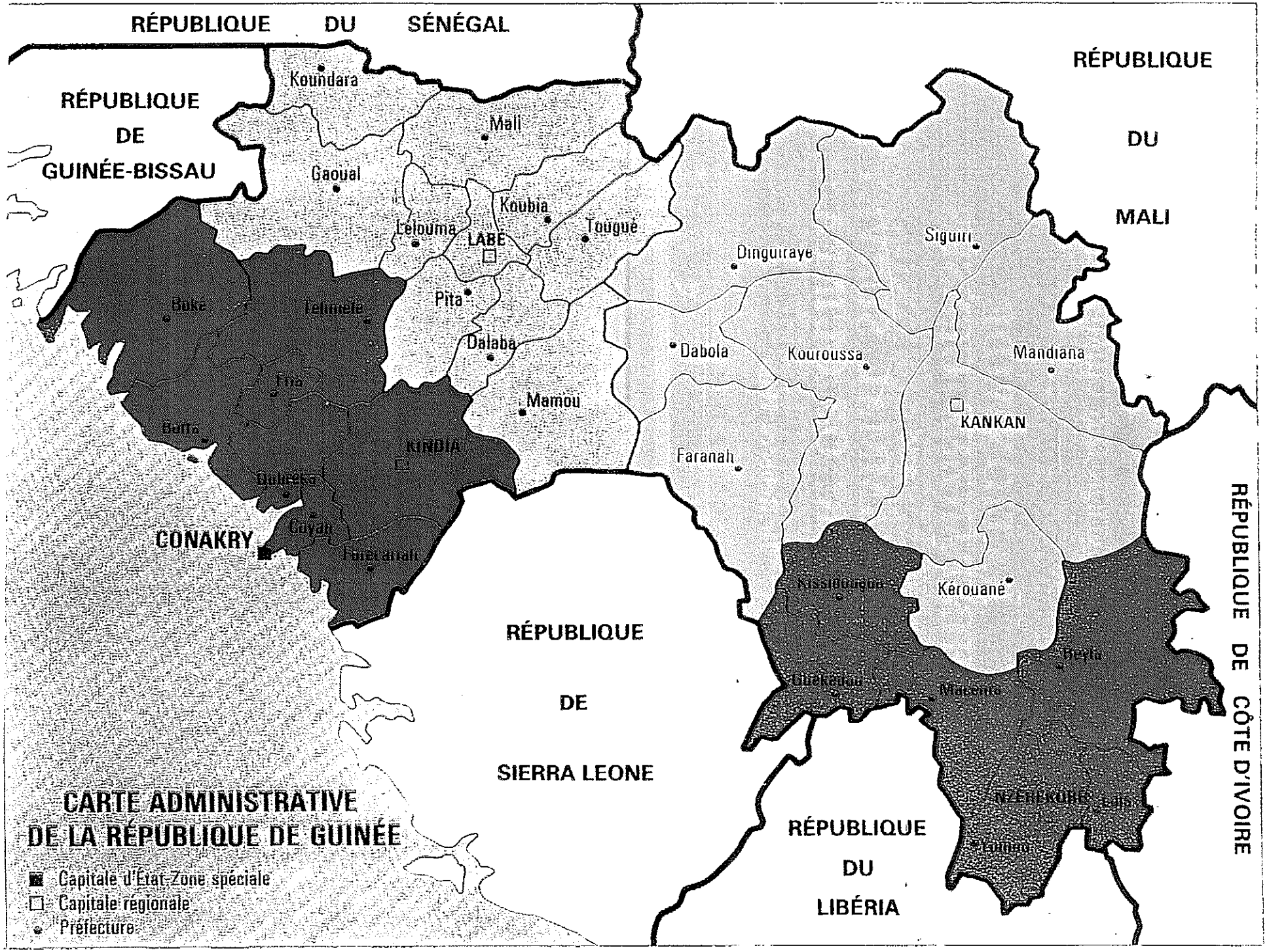
République de Guinée
MINISTERE de L'AGRICULTURE de L'ELEVAGE et des FORETS
DIRECTION NATIONALE des FORETS et de la FAUNE

Union Européenne
Commission des Communautés Européennes
FONDS EUROPEEN DE DEVELOPMENT

PROJET DE CONSERVATION DES CHIMPANZÉS EN GUINÉE

NATIONWIDE CHIMPANZEE CENSUS and LARGE MAMMAL SURVEY REPUBLIC OF GUINEA

Dr.Rebecca Ham


RÉPUBLIQUE DU SÉNÉGAL
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RÉPUBLIQUE DU MALI
RÉPUBLIQUE DE CÔTE D'IVOIRE
RÉPUBLIQUE DE SIERRA LEONE
RÉPUBLIQUE DU LIBÉRIA
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Lélouma
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Tougué
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Telimélé
Pita
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ACKNOWLEDGEMENTS

First and foremost, I would like to thank Janis Carter who conceived, initiated and directed the *Projet de Conservation des Chimpanzés en Guinée*. I wish to thank Janis for her continuous support, guidance and friendship to me throughout every stage of this study.

I would like to acknowledge those who helped in the conceptual stage of this project, long before I arrived, including Violaine Bonneville and Boiro Samba.

I am deeply indebted to the many people who helped me to get to Guinea in the first place, especially Hatib, Bill McGrew, Caroline Tutin and Andy Whiten. I am extremely grateful to the many people who gave me advice on how to count chimps, particularly, Stephen Buckland, Anthony Rylands, Caroline Tutin and Elizabeth Williamson. I would also like to thank Phil Hammond, and Samantha Strindbery for their help with my data analysis. Thank you also to Andrian Barnett, Spartaco Gippoliti, Adriaan Kortlandt, Tetsuro Matsuzawa, John Oates and Yukimaru Sugiyma for their help with this study.

The *Projet de Conservation des Chimpanzés en Guinée.* is funded by the ***European Union.*** I would like to acknowledge their support for this project as well as thank all of those at the EEC in Conakry for their help with and interest in the survey, especially Wim Impens and Frank Viault.

I am extremely grateful to the ***Direction Nationale des Forêts et de la Faune*** in Conakry for their assistance and collaboration. I wish to thank the late Sera Bako Condé as well as Elhadj Massa Mamady Kaba for their support for the census. I am extremely grateful for the help of Badimba Barry, Ilias Diallo, Sagnah Satenin and Christine Sagno. Finally, I would like to acknowledge the tremendous contribution to this census from all the Chef de Sections and Chef de Cantonnement who completed the questionnaires and for their great hospitality and guidance during my visit to their Préfectures and Sous-Préfectures.The names of those who participated in the survey are listed in the Appendices of this report.

I would also like to acknowledge the Bureau Technique at the DNFF and the *Système d'Information Environnemental du Programme Bassins Versants Haut Niger-Haute Gambie*, especially Mr.Ghussard, and Alessandra Pellegrini for their help in producing maps for this report and information on the surface areas of different vegetation types in Guinea.

Thank you also to Saliou Diallo from Guinée Ecologie for his collaboration and contribution to the survey.

During my travels in Guinea, there were many people who made my journeys rich in experience and happiness and I thank you all. I am deeply indebted to Tidiane Traoré without whom I could never have completed the census. I would like to thank Tidiane for driving me safely through Guinea despite many hazardous conditions, and for his everlasting friendship. Thank you also to Tidiane's family for their warmth and hospitality. I am also deeply grateful to my other field assistants and translators: Seikou Baldé who assisted me in the Fouta Djallon, Mr. Camara, who helped me throughout Haute Guinée and Petit Bah, who worked with me throughout much of Guinée Maritime.

I am profoundly grateful to all the hunters with whom I worked. I thank them for sharing their knowledge about wildlife with all of us. Their contribution, has greatly enriched the results of this census. In addition, I would like to thank all the chiefs and the people of the villages we visited, for always welcoming us with open arms and for their overwhelming generosity and hospitality. Thank you to the three nest monitors: Amadou Baïlo Diallo in Dalein, Kallo Aly in Noussi and Sory in Mafou.

Thank you to the many people who welcomed us as visitors to their project sites, especially everyone at the *Projet Parc National du Haute Niger, Parc National du Haute Gambie, Projet de Gestion des Resources Rurales* and *Projet de Gestion des Resources Naturales*.

I am greatly indebted to **USAID** for their logistical support whilst I was in Labé. Thank you also to my friends and neighbours in Labé, especially Steve Aversa, Mr and Mme Baldé, Dantilly and Fanta Diakité, Ousmann and Mme Diallo, Tom Erdmann, and Jennifer and Steve Peterson. Thank you notably to Dantilly Diakité who provided enormous help and advice from the beginning to the end of my stay in Labé.

I wish to thank the many people in Conakry who greatly facilitated my work there, including Mr.Benjamin, Ibrahim Hijazi. Thank you to Isabel Ghussein, Christiane Istasse, Jamil MeKawi, Pamela and John Pervola and all those at CBG and the *Veterinaire Sans Frontière* for their hospitality.

I am deeply indebted to Liz Rogers who kindly invited me to work at the University of Edinburgh while writing this report. I would like to thank both the University of Edinburgh and the University of St.Andrews for their logistical support.

I wish to thank Hannah Buchanan-Smith for her invaluable advice for the survey as well as her help with the census during her visit to Guinea in December 1996 and January 1997. Thank you to all of my friends for their continuous encouragement during every phase of this work, especially Pennie Blackburn, Hannah Buchanan-Smith, Panya and Javier Clark-Espinal, Kate Harrison, Karen McDonald, Robert Moss, Richard Parnell, Liz Rogers, Ben Voysey, Liz Williamson. Thank you to all my family and especially my mother.

Finally, I would like to thank Mamadou Oury Bah who helped to conceive the *Projet de Conservation des Chimpanzés en Guinée* in the first place and then to see that it was finally realised. Even after his death, his legend lives on and touches many of us; even those who never met him.

During the census I travelled to a new location almost every night. There are so many people during this voyage who touched me greatly and who contributed significantly to the information presented in this report. To mention everyone would be a book in itself. You are all remembered and I thank you all very much.

Rebecca Ham

ABSTRACT

A seventeen month nationwide chimpanzee census and wildlife survey was conducted in the Republic of Guinea, West Africa from November 1995-June 15 1996 and August 1996-June 1997. Three methods were used to estimate chimpanzee density. (1)Questionnaires were sent to forestry officials in each of the 336 Sous-Préfecture in Guinea (not including Conakry, Guinea's capital). Questions concerned chimpanzee numbers and locations, people's attitudes towards chimpanzees, hunting pressures, as well as information on other large mammals within their Sous-Préfecture. (2)Reconnaissance surveys were then conducted in the field in 92 locations in order to confirm the presence or absence of chimpanzees and other wildlife, to assess chimpanzee habitat and to interview hunters. (3)Transects of 5200 m in length were walked in 42 randomly chosen locations throughout Guinea and chimpanzee nests were counted as an index of chimpanzee abundance. All of these methods gave similar figures and it is estimated that there are at least 12,000 chimpanzees in Guinea. Almost half of chimpanzees in Guinea are believed to be living in the Fouta Djallon, the highlands of Guinea. The Fouta is inhabited mainly by Pular people who do not hunt chimpanzees because it is forbidden by religious, cultural and traditional beliefs. Although the number of chimpanzees in Guinea is bigger than was previously believed, the situation for chimpanzees is still critical. In areas where chimpanzees are not hunted, most populations are found on steep isolated mountains or in small isolated classified forests surrounded in human inhabitation or agricultural areas. Even where hunting pressure is low, human encroachment threatens the survival of these fragmented populations. In other areas of Guinea, chimpanzees are hunted for food or because they are agricultural pests. In these regions, chimpanzee density is low. The trade in infant chimpanzees still flourishes throughout Guinea and even where chimpanzees are not eaten, mothers are are sometimes killed to steal their young. Stricter laws, public awareness campaigns, and intensive work in areas still supporting viable chimpanzee populations are desperately needed to secure the future for chimpanzees in Guinea. This report includes baseline information on the distribution and density of wild chimpanzee populations, a prioritised listing of areas proposed for further research and/or protective status and recommendations of measures for the protection of wild chimpanzee populations.

Nov 1995 → June 1997

TABLE OF CONTENTS

TABLES

FIGURES

PLATES

APPENDICES

INTRODUCTION

INTRODUCTION

Due to commercial exploitation and destruction of their habitat through logging and farming, many species of large mammal throughout Africa are under threat. Chimpanzees (*Pan troglodytes*) present a special conservation problem. Not only are their numbers declining due to loss of habitat and from hunting pressures, but chimpanzees are taken from the wild for sale for biomedical purposes entertainment and for pets. Chimpanzees used to live across most of equatorial Africa and could be found in at least 25 countries. Today, their range is greatly reduced and fragmented. In 4 countries: Benin, Burkina Fasso, the Gambia (except a small population introduced onto two islands in the River Gambia) and Togo, wild chimpanzees have already been exterminated and in 10 other countries they are now almost extinct. There are believed to be only about 200,000 chimpanzees remaining in the wild (Lee *et al.*, 1988). **Figure 1** shows their present known distribution (Oates, 1996).

There are two species of chimpanzee-the pygmy chimpanzee (*Pan paniscus*) living only in Zaire and the common chimpanzee (*Pan troglodytes*). There are 3 sub-species of the common chimpanzee, the eastern chimpanzee (*P.t.schweinfurthii*), the central chimpanzee (*P.t.troglodytes*) and the western chimpanzee (*P.t.verus*) (**Figure 2**) (Teleki, 1989)

Chimpanzee are listed in Appendix 1 of CITES, in class A of the African Convention (1969) and as "Endangered" by the IUCN Red Data Book (1996). The sub-species in the most immediate danger of complete extinction however, is the western chimpanzee (*P.t.verus*) and it is believed that there are no more than 12,000 left in the wild (Oates, 1996). A recent nationwide survey of the Ivory Coast however, estimates a population of 11,676±1,168 for this country alone, so it is possible the population of the western sub-species is higher than previously believed (Marchesi *et al.*, 1995).

Genetic evidence suggests that *Pan t.verus* is very different from the other 2 sub-species and probably diverged from them about 1.6 million years ago. It has been suggested that this sub-species should be classed as a separate species instead (Morin *et al.*, 1992). Whether or not it is classed as a separate species, in terms of conservation, Oates (1996) believes that *P.t.verus* should probably be viewed as an independent evolutionary unit.

P.t.verus is found in Southern Senegal, Southern Mali, the Republic of Guinea, Ivory Coast, Sierra Leone, Liberia and Nigeria. Estimates based on known populations and the area of suitable habitat within the country, suggest that the Republic of Guinea may provide home for much of the remaining population of *Pan troglodytes verus* (Lee *et al.*, 1988; Teleki, 1987). In fact, the Republic of Guinea is believed to be one of the most biodiverse countries for mammals in general in the West African forest block on a species-per area basis (Barnett and Prangley, 1997). Little is known about the country's mammalian fauna however, since it is one of the least well-studied in West Africa (Barnett and Prangley, 1997).

One of the first ever field studies of primates was in Guinea, undertaken by Nissen (1931) who studied a population of chimpanzees east of Kindia. Chimpanzees at this time were probably widespread, but since the time of Nissen's study the number of chimpanzees in Guinea is thought to have declined drastically. Part of this decline is beleived to be due to the *Institute Pasteur*, a facility for medical research in Guinea, which was established in 1923. In addition to capture for medical research within Guinea, many chimpanzees are known to have been captured and sold through the Institute and shipped to other countries through the port in Conakry. It is believed that approximately 3,000-4,000 mothers were killed in order to capture their babies (Kortlandt, 1965).

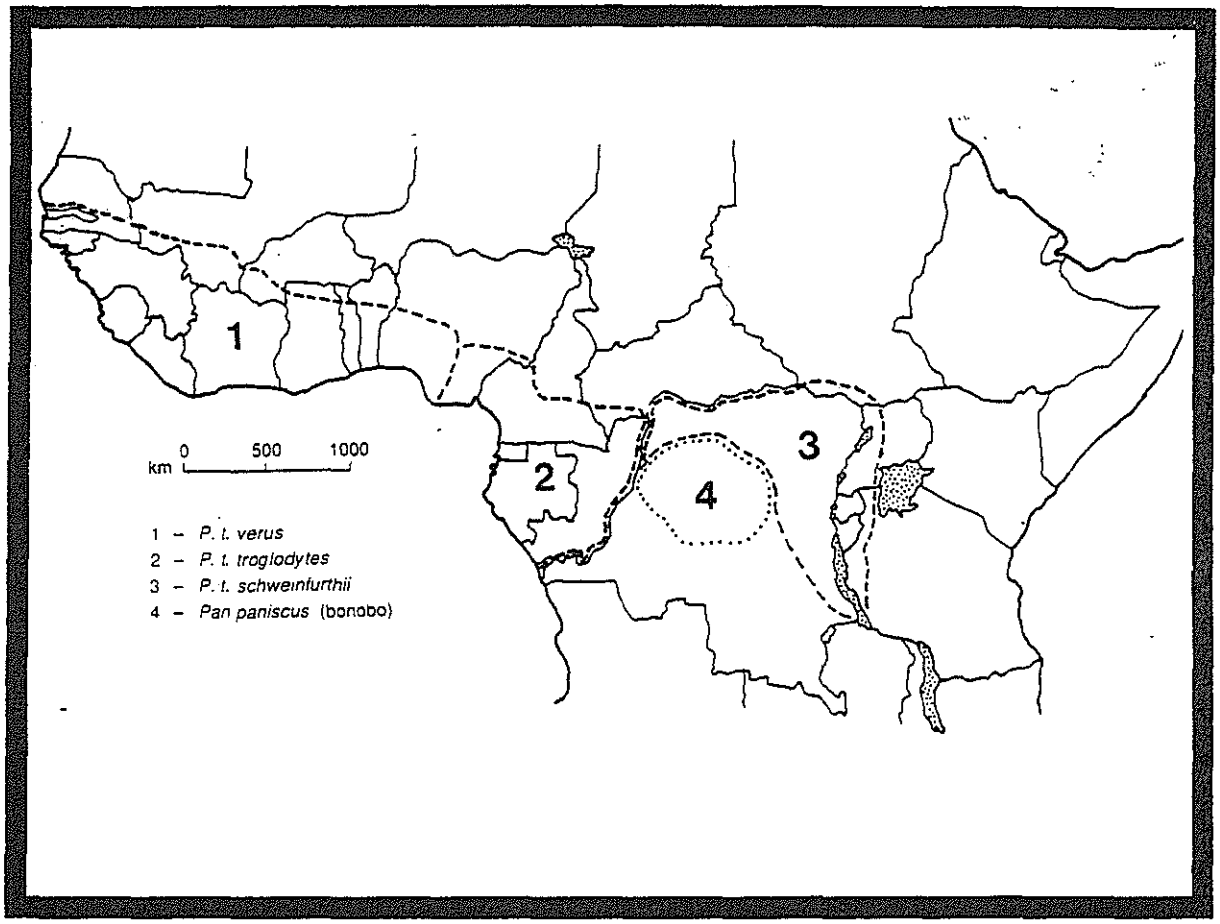

Figure 2. Distribution of (1) *Pan troglodytes verus*, (2) *Pan troglodytes troglodytes*, (3) *Pan troglodytes schweinfurthii* and (4) *Pan paniscus* in Africa (Teleki, 1989)

TERMS OF REFERENCE

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Scope of Work

Under the direction of the Project Director, and in cooperation with other members of the team, the primary responsibilities of the Research Assistant include:

1. Preparation, distribution and analysis of a preliminary questionnaire which will serve to indicate areas of chimpanzee habitat and to introduce the project to rural organisations and leaders.

2. Design of an educational dimension to the field survey which could include the preparation of introductory descriptive information on the project aims.

3. Conduct a nationwide survey on the distribution of chimpanzees, determine an estimate of current densities throughout the country based on various field techniques including direct and indirect observation and interviews with knowledgeable individuals.

4. Identify and evaluate existing chimpanzee habitats.

5. Collect information on human activities and attitudes related to chimpanzees.

6. Identify potential sites for the final release of confiscated chimpanzees

7. Assist in the design of long term monitoring of selected chimpanzee groups.

Deliverables

8. Prepare and submit a work plan and schedule of implementation for the entire field survey. This plan should be submitted and approved by the project director prior to initiating the actual fieldwork and will become the basis of the first quarterly report to the EEC.

9. Submit proposed detailed quarterly work plan for review and comment by director.

10. Submit quarterly reports, interim reports and final reports to the director covering all aspects of work accomplished under this agreement. The first report is to be submitted not later than February 15.

11. Submit monthly financial accounts and monthly vehicle log sheet in the form dictated by the project contract signed by Janis Carter and the General Conditions.

12. Submit a draft of your final report not longer than 6 weeks after completion of your field work. This report should include baseline information on estimated numbers, distribution and density of wild chimpanzee populations, a final map indicating areas of concentration of wild chimpanzees, prioritised listing of areas proposed for further research and/or protective status, recommendations of measures for the protection of wild chimpanzee populations.

STUDY SITE: THE REPUBLIC OF GUINEA

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Guinea is situated on the west coast of Africa and lies between 7°05'-12°51'N and 7°30'-15°10'. The country covers an area of 245,857 km2 and is bordered by six countries; Guinea Bissau, Senegal and Mali to the north; Ivory Coast, Liberia and Sierra Leone to the south. The Atlantic Ocean lies to the west (**Figure 3**). Guinea is divided into four natural regions: Guinée Maritime (36,208 km2), the Fouta Djallon (or Moyenne Guinée; 63,608 km2), Haute Guinée (96,667 km2) and Guinée Forestière (49,375 km2). The country is politically divided into 34 Prefectures (**Figure 4**). These Prefectures are in turn, divided into 345 Sous-Préfectures. The Sous-Préfectures are also further divided into smaller administrative regions (eg. Districts and Secteurs).

The chimpanzee census was carried out at a national level. In order to set up a foundation for future discussions within this report, the following country profile is provided as background information relevant to the distribution of chimpanzees and other wildlife.

Table 1 gives a summary of the information provided below, showing regional differences for each subject.

POPULATION

Guinea is one of Africa's most densely populated countries. The human population density is high: 7,164,893 people in 1996 (République de Guinée, 1996) of which 5, 235,000 is rural. Over 15% of the population is in Conakry, Guinea's capitol city. The country's population is predicted to be double this by 2020 (Wilson, 1992). Population growth rate in 1995/96 was 2.3%.

The most densely populated area is Guinée Forestière and the least densely populated area is in Haute Guinée. **Table 1** gives the population density by region and **Table 2** gives the population density by Prefecture.

Since the war in Sierra Leone and Liberia, there has been a massive influx of refugees into Guinée Forestière. There are more refugees seeking refuge in Guinea than in any other African country. At the end of 1996 it was predicted that there were about 650,000 refugees in Guinea from Liberia (400,000) and Sierra Leone (250,000) (UNHCR, 1997a). An estimated 400,000 Liberians are evenly distributed between the eastern and western zones of the Guinée Forestière. Nearly 220,000 of refugees from Sierra Leone are in the western zone of Guinée Forestière where the borders of Guinea, Sierra Leone and Liberia meet. More than 30,000 refugees from Sierra Leone live in the Forecariah Préfecture. Many refugee camps are distributed throughout these areas. Malnutrition in these camps can be as high as 13%. Thousands of legitimate refugees remain unregistered and therefore receive little or no relief assistance.

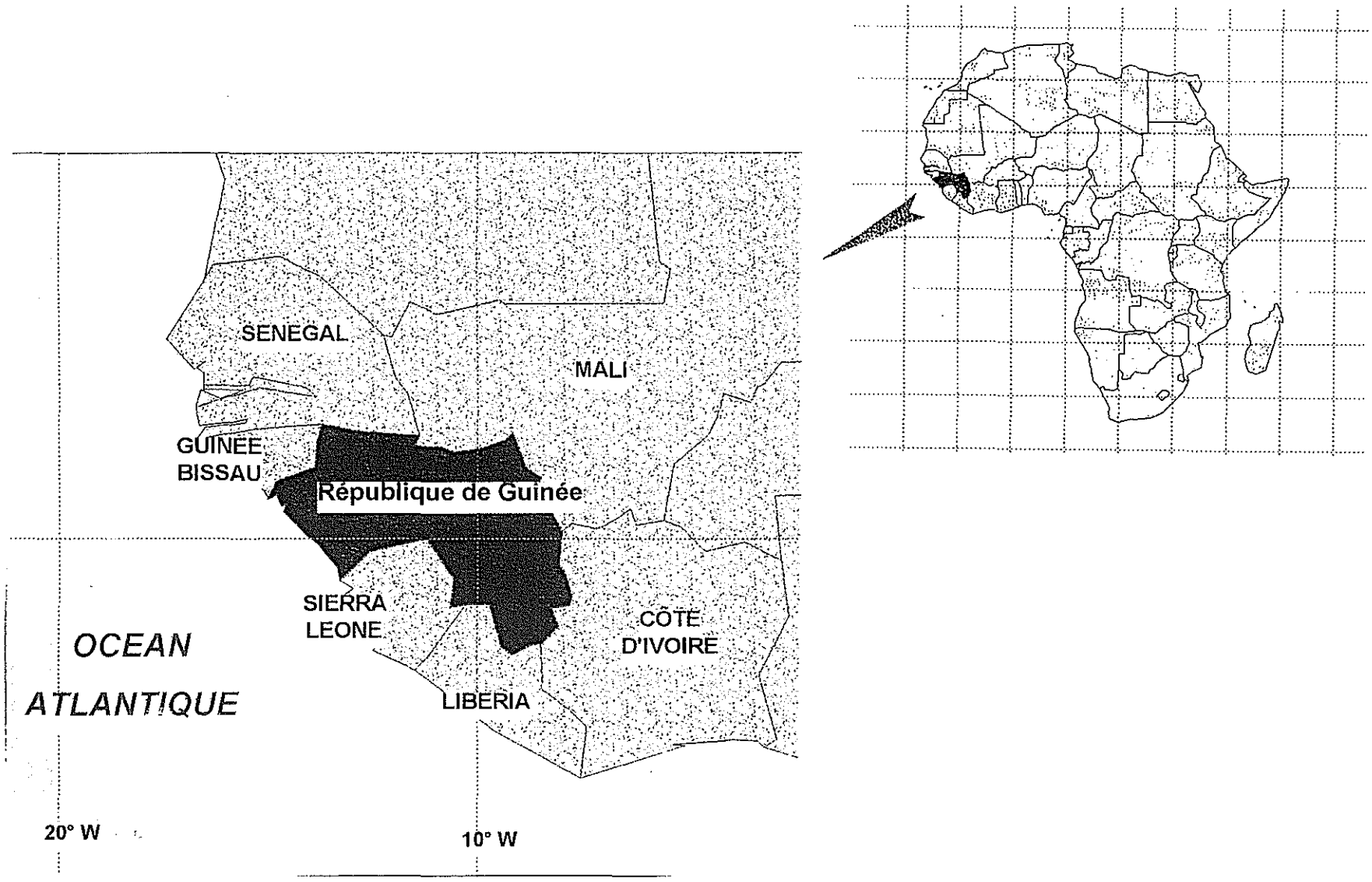


Figure 3. Position of the Republic of Guinea in Africa

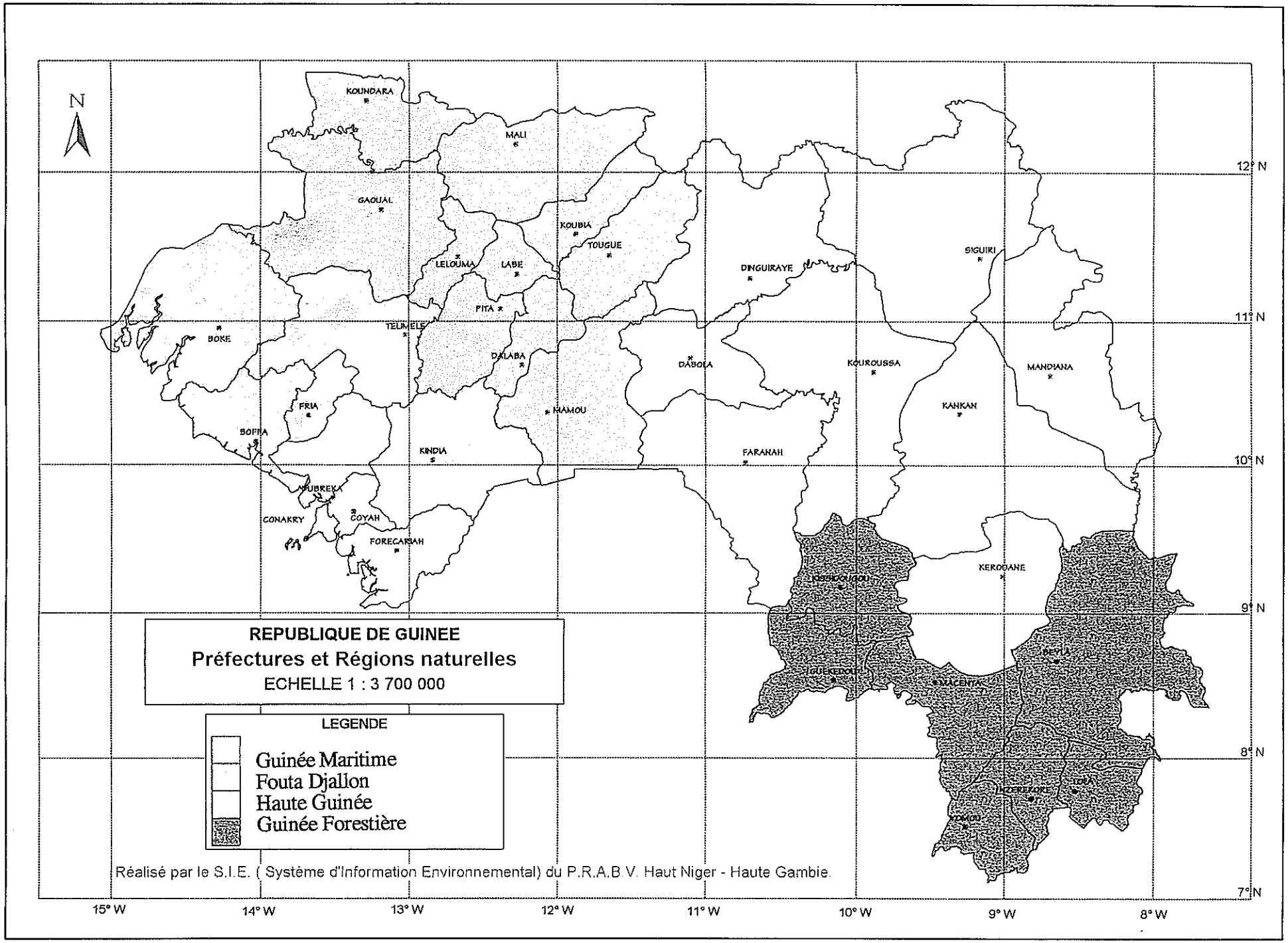


Figure 4. Map showing the Préfectures and the four natural regions of Guinea

Table 1. Summary of difference between four natural regions of Guinea

	CONAKRY	FOUTA DJALLON	GUINEE FORESTIERE	GUINEE MARITIME	HAUTE GUINEE
Human Population	**1094075**	**1645959**	**1554817**	**1465936**	**1404106**
% of Total Population	**15**	**23**	**22**	**20**	**20**
Surface area (km2)		54857	46000	45000	100000
% of Total Surface Area		22	19	18	41
Population density (hab/km2)		30	34	33	14
Mean Annual Rainfall (mm)		1,500-2000	2,000-2,400	2,000-4,500	1200-2000
Months of dry season		5	3	4	6
Altitude (m)		530-1530	460-1750	Sea level-1120	320-1110
Soils		Sandstone Dolerite Schist	Granite Gneiss Schist Quartzite	Sandstone Schist	Granite Schists
Vegetation		Closed Dry forest Clear forest Wooded savanna Steppes	Closed Humid forest	Mangrove Humid Dense forest Clear forest Wooded savanna Steppes	Savanna Wooded savanna Clear forest
Land use		Pastoralism Agriculture and Pastoralism	Agriculture and Pastoralism	Agriculture and fishing	Agriculture and pastoralism
Main crops		Fonio Maize Manioc Groundnuts	Palm oil Cola nuts Coffee Coco Fruit Rice	Rice Manioc Palm oil Maize Fonio Vegetables	Roots and tubers Rice Fonio
Cattle		620327	131144	219881	500594
Density/km2		11	3	5	5
Main Language		Peul	No one language	Sousou	Malinké
Other Languages		Toucouleur Landouma Dialonké Bassari Coniagui Badyaranké Foulacounda-Peul	Kissi Toma Guerzé Kono Manon Malinké Peul	Baga Nalou Yola Malinké	Ouassoulounké Dialonké,

Table 2. Population Density for each of the 34 Préfecture in Guinea

REGION	PREFECTURE	POPULATION
Fouta Djallon	Dalaba	136947
Fouta Djallon	Gaoual	137599
Fouta Djallon	Koundara	90919
Fouta Djallon	Lelouma	136649
Fouta Djallon	Labe	251504
Fouta Djallon	Mali	211190
Fouta Djallon	Mamou	236125
Fouta Djallon	Pita	238760
Fouta Djallon	Tougue	114377
Fouta Djallon	Koubia	91889
Guinée Forestière	Beyla	167461
Guinée Forestière	Guekedou	348053
Guinée Forestière	Kissidougou	205836
Guinée Forestière	Lola	134296
Guinée Forestière	Macenta	281053
Guinée Forestière	Yomou	135215
Guinée Forestière	NZerekore	282903
Guinée Maritime	Boffa	156949
Guinée Maritime	Boké	294314
Guinée Maritime	Conakry	1094075
Guinée Maritime	Coyah	85106
Guinée Maritime	Dubreka	131750
Guinée Maritime	Forecariah	201193
Guinée Maritime	Fria	80903
Guinée Maritime	Kindia	288007
Guinée Maritime	Telemele	227714
Haute Guinée	Dabola	110965
Haute Guinée	Dinguiraye	137138
Haute Guinée	Faranah	147743
Haute Guinée	Kerouane	153913
Haute Guinée	Kankan	262547
Haute Guinée	Kouroussa	149325
Haute Guinée	Mandiana	170881
Haute Guinée	Siguiri	271594
TOTAL		**7164893**

HISTORICAL AND CULTURAL BACKGROUND

Agricultural practices are thought to have begun in Guinea around 2000 BC. The Sahara pastoralists are believed to have come to Guinea from the north around in 5000 BC. Around 1000 AD the Mandé-speaking people migrated into Guinea from the north and south-east. After the 14th century other groups such as the Peul migrated into Guinea.

The first European presence in Guinea was in the 1400's when the Portuguese came to explore the coast of Guinea. The French then went to war with Guinea and its leader Samory Touré for a century. The French were victorious in 1898 after which they gradually colonised the country.

After a period of colonial rule, in 1958 Charles de Gaulle proposed a federation Franco-African Community with limited autonomy for each of the constituent colonies. On September 28, 1958, Guinea and their leader Ahmed Sékou Touré voted 95% "No" to the federation and on October 2, 1958 Guinea was the only African country to reject de Gaulle's proposal.

Following independence from France in 1958, for over 25 years Guinea closed its borders and withdrew from global politics and foreign markets. Lansana Conté of the Party of Unity and Progress (PUP), took office as Head of State of the Republic of Guinea in 1994 after multiparty elections.

Today, the official language in Guinea is French and there are eight recognised national languages, (although there are many more): Bassari, Coniagui, Guerze, Kissi, Malinké, Pular, Sousou and Toma. The majority of people speak Pular in the Fouta Djallon, Sousou in Guinée Maritime, Malinké in Haute Guinée and in Guinée Forestière there are many different languages (**Table 1**).

ECONOMY, PUBLIC HEALTH AND WELFARE

Although Guinea is rich in minerals and has high agricultural potential, it is one of Africa's poorest, least developed and most densely populated countries. Eighty percent of Guinea's seven million citizens engage in subsistence agriculture and annual per capita gross domestic product is about US$740 (UNHCR, 1997b). Major exports include bauxite, gold, diamonds, fruit, coffee.

Life expectancy at birth was 45.1 years in 1994. Child mortality is above average and is greater than 1 in 3 (FAO). Many of the health problems in Guinea are related to water and only 55% of the population in Guinea has access to safe drinking water.

AGRICULTURE AND LIVESTOCK

Pastoralism alone is often practised in the Fouta Djallon and pastoralism in conjunction with agriculturism is present everywhere else, except along the coastal strip where agriculture is combined with fishing. Livestock, include cattle, chickens, goats, sheep and pigs (although pigs are not kept or eaten in the Fouta or Haute Guinea where the population is mostly

Muslim). **Table 1** gives a summary of the main types of crops and the number of cattle for each of the four natural regions.

CLIMATE

The climate can have important effects on vegetation and therefore indirectly on chimpanzee density and distribution. The climate is extremely variable in different areas in Guinea depending on the latitude, elevation and proximity to the coast. The climate has two seasons (the rainy and dry season) that vary according to the region.

I. Rainfall: The climate becomes increasingly drier from the southwest to the northeast. The rainy season varies between 3 months in the north to more than 9 months in the southeast. The annual precipitation varies between 4500 mm in the coast to 1300mm in Haute Guinee. It rains everywhere in July and August.

II. Temperature: Temperatures can be as low as 14° C and as high as 37°C in the mountainous Fouta Djallon region. Mean monthly maximum temperatures are highest around March and mean monthly minimum temperatures are lowest around December. The climate is hottest in the north.

GEOLOGY

The topography of Guinea is extremely variable from the low coastal areas in Guinée Maritime, rising up to the highlands of the Fouta Djallon, the relatively flat plains in Haute Guinée and the mountainous Guinée Forestière. The "Dorsale Guinéene" is a mountain chain traversing the country in the southeast and the Fouta Highlands are found in the central part of the country. Not surprisingly because of its high elevation, the source of many of the major rivers of West Africa are found in Guinea (eg. The Gambia, the Senegal, the Niger Rivers).

Guinée Maritime: The coastal area is made up mostly of an extended Quartinary coastal plain but the terrain slopes gradually upwards towards the highland of the Fouta Djallon to the east.

Fouta Djallon: In the Fouta Djallon the mountain range traverses the region in a north to south direction rising steeply from the west and gently from the east. The highest point is about 1,538m in Mali. This area is almost entirely sandstone.

Haute Guinée: The average elevation in this region is only about 300 m and the bedrock is granite, except in the north east where schists prevail.

Guinée Forestière: The highlands in Guinée Forestière are actually even higher than those of the Fouta Djallon. The highest point is Mont Nimba (1,752m) Pic de Fon (1,656m) and Pic de Tibe (1,504m) and Mont Ziama (1,387m). The mountains are of hard bedrock-granite, gneiss, scist or quartzite.

VEGETATION

Guinea straddles three main climatic and vegetation zones. The rainforests in the south of Guinea form part of the Upper Guinea Forest bock and are isolated from the rest of the Guinea-Congolian forests by the Dahomey Gap (Sayer *et al.* 1992). The transitional woodland-grassland mosaic extends across the middle of the country and the dry Sudanian Savanna vegetation zones in the north east (White, 1983). Mangroves hug the northern coastline (**Figure 5**).

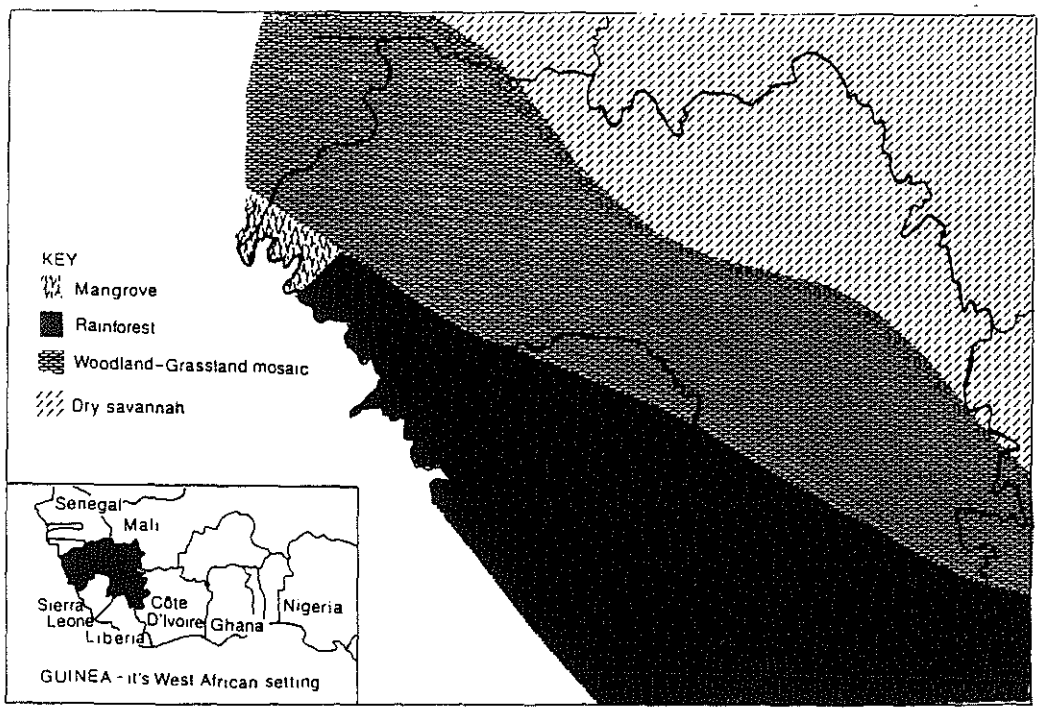


Figure 5. Map of Guinea showing different vegetation zones (from Barnett and Prangley, 1997)

The habitat types recognised for the present study are as follows:

Closed Humid Forest (French: Forêt Dense Humide)

This type of forest usually occurs in areas where the rainy season is long (8 to 9 months) and is distinguished by the following: The forests are at least 30m in height (White, 1983) and the emergent canopy is composed of very large trees reaching the height of 40 to 50 m. There is very little herbaceous vegetation because the crown of the trees are interlocking and very little sunlight is filtered through. Most individuals of most trees are evergreen and shed their leaves intermittently.

This includes evergreen forest in the south east of the country in small patches in Macenta, Nzérékoré and Yomou and forests in the extreme southwest in Guinée Maritime. The evergreen

forest is similar to that found in the Ivory Coast and Liberia. The forest is mixed with no clear dominant species, although *Piptadeniastrum africanum, Parkia bicolor, Heritiera utilis; Entandrophragma* spp. and *Lophira alata* are important species in this forest type (Wilson, 1992) as well as *Terminalia, Khaya grandifolia, Tarrieta utilis, Triplochitum scleroxylon, Mansoniea altissima, Nauclea diderichii, Heriteria utilis,* and*Lovoa trichiloïdes* .

There are two sub- types of dense humid forest:
(1) Wet evergreen forest (French: Forêt dense humide sepervirente) (**Figure 6**)
(2) Moist deciduous Forests (French: Forêt dense Humide semi-décidue) (**Figure 7**)

For the purposes of recognition in the field, this category was defined as: forest with interlocking canopies and where the majority of trees are evergreen with an average tree height of 30 m and very little herbaceous vegetation on the ground

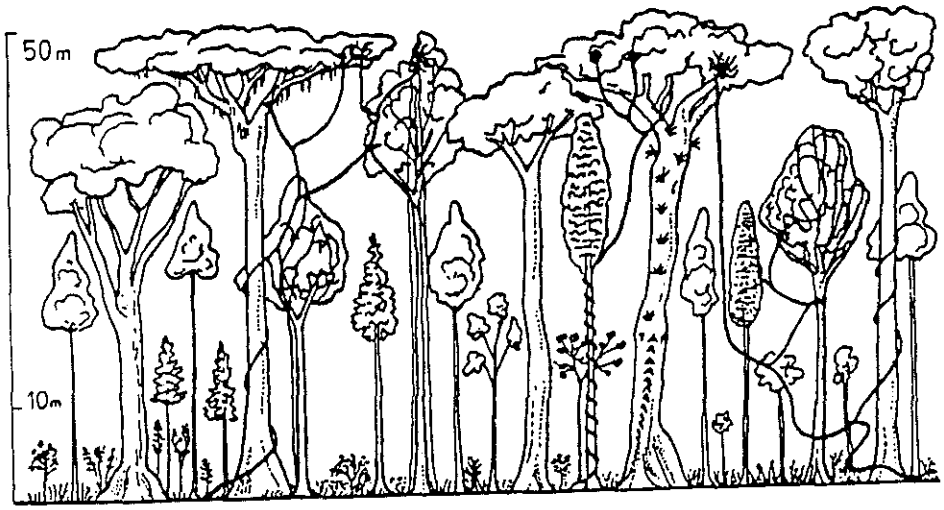


Figure 6. Wet evergreen forest (French: Forêt dense humide sepervirente)

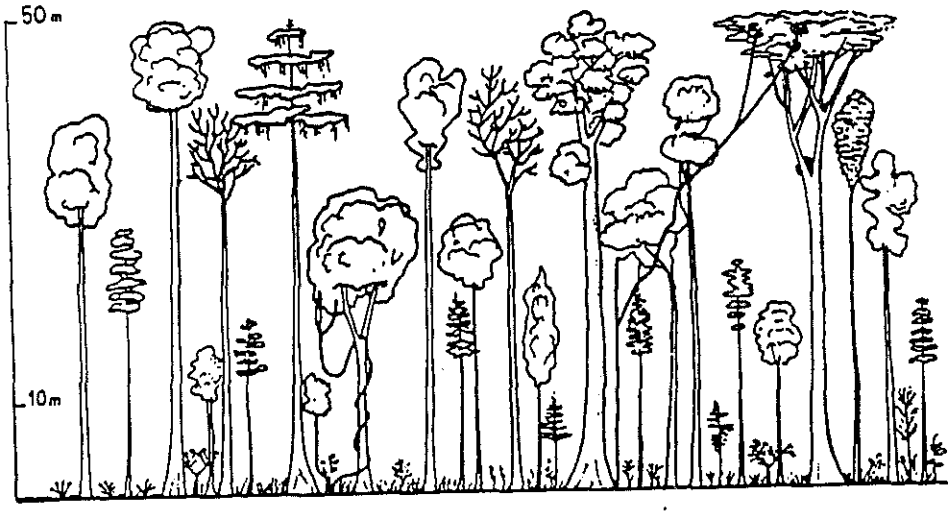


Figure 7. Moist deciduous Forests (French: Forêt dense Humide semi-décidue)

Closed Dry Forest (French: Forêt Dense Seche)

This type of forest tends to be found in areas with rainfall between 1,200 and 1,600 mm per year. In Guinea, these types of forest are often found in the centre and north of the country. Forests are still dense and canopies interlock, but trees are deciduous. All trees, however, do not loose their leaves simultaneously giving an evergreen nature (White 1983). The canopy is slightly lower than that of "closed humid forest" with an average height of 20 m.

Typical species of this forest type are *Afzelia africana, Pterocarpus erinaceus, Daniellia oliveri* and *Isoberlinia doka.* With an increasingly dry habitat *Khaya grandifolia* and *Afzelia* spp. become more common (Wilson, 1992).

The uplands of the Fouta Djallon have a five months dry season, frequent mists, relatively high rainfall, cooler temperatures and high relative humidity. Here are found submontane forests (White, 1983). Above 1000m *Parinari excelsa* dominates and *Parkia biglobosa* is common. These are included under the category "closed dry forests".

For the purposes of recognition in the field, this category was defined as: forest with interlocking canopies where the majority of trees are deciduous, with an average tree height of about 20 m (**Figure 8, Plate 1**)

Figure 8: Closed Dry Forest (French: Forêt Dense Seche)

Open Forest (French: Forêt Claire)

The canopy of this type of forest is more open than either the dense humid or dense dry forests and light is allowed to filter through. There are often a great dominance and sometimes even pure stands of certain species such as *Berlinia, Isoberlinia, Pseudoberlinia, Julbernardia, Brachystegia, Erythrophleum, Monotes, Uapaca* and *Anogeissus* . There is often a substantial

herbaceous layer and trees are often twisted and branching low.

For the purposes of recognition in the field, this category was defined as: Forest where canopy is not interlocking with an average tree height of about 10 m with emergents rarely taller than 20 m (**Figure 9, Plate 2**).

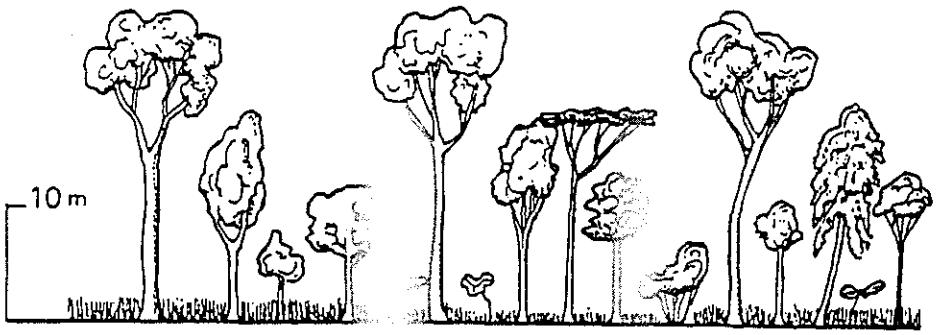


Figure 9: Open Forest (French:Forêt Claire)

Gallery Forests (French: Forêt Gallerie)

Gallery forest is defined as trees, shrubs and herbaceous vegetation growing in narrow bands along rivers, streams and drainage ways that have satisfactory water regime all year round. The crowns of the trees are interlocking. There is noticeable presence of lianas and epiphytes and vegetation is for the most part evergreen, though there are often deciduous species. There is a clear dominant and secondary canopy. The dominant canopy reaches heights 20-25 m and is composed of large diameter trees (e.g. *Ceiba pentandra*) with hanging lianas and climbers. The secondary canopy is composed of less light-demanding species of medium to small diameters. The ground is for the most part clear with a few annual grasses and some herbaceous plants. Tree diversity is high and soil conditions are good. Common species include: *Carapa procera, Cola lauriana, Erythrophleum guineensis, Pterocarpus santalanoïdes*, and *Syzigium guineensis* .

For the purposes of recognition in the field, this category was defined as: forests growing in narrow bands along rivers, streams and drainage ways that have satisfactory water regime all year round, where the canopy is closed and the majority of trees are evergreen with an average tree height of 20 to 25 m (**Figure 10, Plate 3**)

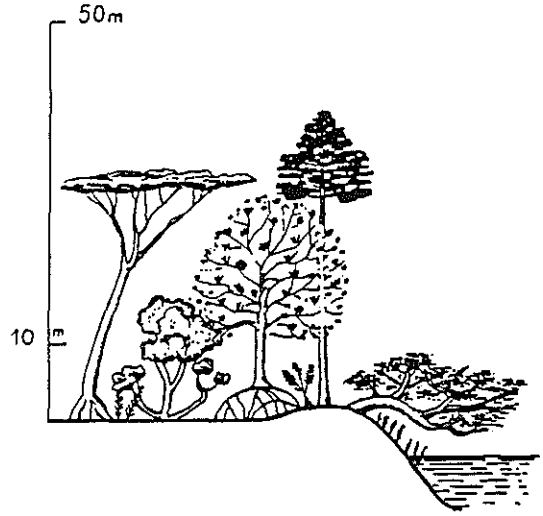


Figure 10: Gallery Forests (French: Forêt Gallerie)

Wooded Savanna: (French: Savane arborée)

This is similar to White (1983) category of Guineo-Congolian wooded grassland. Usually fire-hardy trees are scattered throughout the savanna. Species include such as *Nauclea latifolia, Pterocarpus erinaceus,* and *Parkia biglobosa.*

For the purposes of recognition in the field, this category was defined as: herbaceous and grassy vegetation with scattered trees with an average height of about 10 m (**Figure 11, Plate 4**)

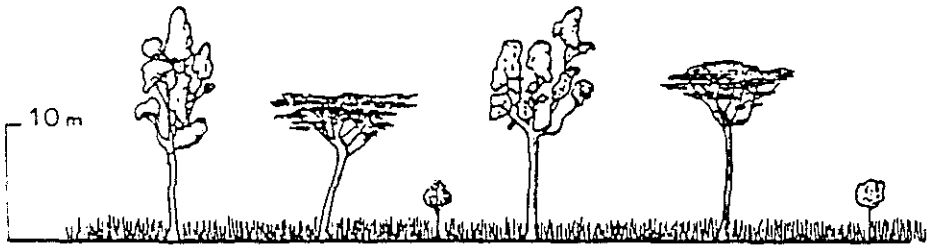


Figure 11: Wooded Savanna: (French: Savane arborée)

Thicket: (French: Fourré)

For the purposes of recognition in the field, this category was defined as: forest formed by the dense growth of bushes and shrubs less than 5 m and often spiny so that it is generally

impenetrable (**Figure 12**)

Figure 12: Thicket: (French: Fourré)

Savanna: (French: Savanne)

For the purposes of recognition in the field, this category was defined as: herbaceous and grassy vegetation with scattered shrubs with an average height of less than 5 m (**Figure 13, Plate 5**)

Figure 13: Savanna: (French: Savanne)

Steppes: (French:Steppe)

These are made up of solid sheets of bauxite or laterite with a thin mixed layer of poor sedimentary soils. Sometimes even this is absent. They are defined as "well-drained soils in which ferrimanganese concretions have at some stage been cemented together to form a continuous slag-like hardpan" (Richards, 1996). These areas were once found at low elevations but have been elevated and since they are resistant to erosion, they have ended up as the highground. Only sparse vegetation is supported, such as *Combretum collineum* and short grasses less than 1 m high that grow in the wet season.

For the purposes of recognition in the field, this category was defined as: flat open areas with hard rocky soil with a thin layer of herbaceous and grassy vegetation in the rainy season

and scattered shrubs with an average height of less than 5 m (**Figure 14, Plate 6**)

Figure 14.Steppes: (French:Steppe)

Mangrove Forest

Mangrove forests are found along the coast of Guinea and in many river estuaries. Species include *Rhizophora harrisonii, R. racemosa, R. mangle, Avicennia africana and Laguncularia racemosa* (Wilson, 1992). For the purposes of recognition in the field, this category was defined as: tree and shrubby vegetation growing in habitats periodically flooded by sea water and river water (**Figure 15**)

Figure 15: Mangrove Forest

Plate 1. Closed forest

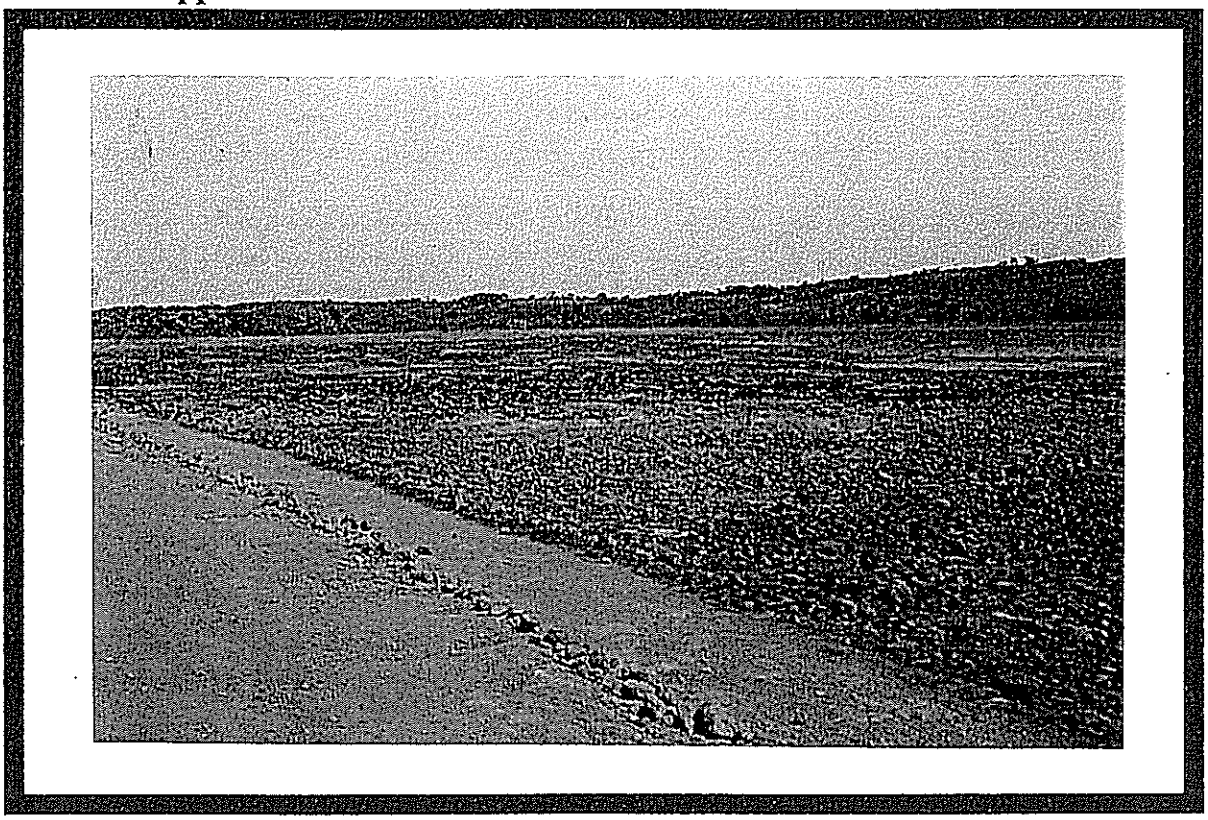
Plate 2. Open forest

Plate 3. Gallery forest

Plate 4. Wooded savanna

Plate 5: Savanna

Plate 6: Steppe



A large part of the surface area of Guinea is also covered in **agricultural** and fallow lands and villages and roads were included under the category of **urban areas.**

There seems to be little agreement as to the surface area different types of vegetation in Guinea. The area of closed broadleaved forests in Guinea has been estimated at 20,500km2 at the end of 1980 (FAO, 1988) with rainforest covering 7,655 km2 (of which 4,482 km2 is lowland rainforest; 210 km2 is montane rainforests; and 2,963 km2 are mangroves) and an annual deforestation rate of 360km2. Stuart *et al* (1990) suggest that forest and woodland make up 42% of Guinea.

ADMINISTRATION RESPONSIBLE FOR WILDLIFE

The governmental body responsible for wildlife is the Ministry of Agriculture and the Direction Nationale des Forêts et de la Faune (DNFF). In each Préfecture, the DNFF representative is the "Chef de Section". In each Sous-Préfecture the DNFF representative is the "Chef de Cantonnement".

LEGISLATION CONCERNING WILDLIFE

In terms of international accords protecting wildlife, the Republic of Guinea has ratified CITES and the convention concerning the Protection of World Culture and Natural Heritage (WHC, Paris, 1972) and the Convention for the Cooperation in the Protection and Development of the Marine and Coastal Environment of the Western and Central African Region (Abijan, 1981). Guinea has signed but not ratified The African Convention for the Conservation of Nature and Natural Resources (ACCN) (Barnett and Prangley, 1997).

Within Guinea, the law governing the use of wildlife is the "Code de la Protection de la Faune Sauvage et Réglementation de la chase" (Républic de Guinée, 1988) This was drafted in 1988, adopted in 1990 and amended in 1997. In this code, species are listed as either : (1) integrally protected, (2) partially protected, or (3) other species. Species which are integrally protected cannot be hunted or captured or detained or exported except if a scientific permit is obtained from the government. For species which are not specially protected, hunters must obey the "Réglementation de la chase". For example, hunters must have a permit to hunt, can only hunt between 13 December and 30 April only between sunrise and sunset. The penalty for hunting or capturing, detaining an integrally protected species is both 6 months to 1 year in prison and a fine of 40,000 to 80,000 fg, or one of these two penalties. **Table 3.** gives a list of those species of large mammal classified as integrally protected in Guinea. Chimpanzees are included in this list.

Protection of wildlife also involves protection of their habitat. There are 156 classified forests in Guinea giving a total of 1,186,611 ha, or 4.82% of the total surface area of the country (**Figure 16**). These classified forests are listed in **Appendix I.** Protected areas can be one of six types: (1) Parcs Nationaux; (2) Réserves Naturelles Intégrales; (3) Réserves Naturelles Gérées; (4) Réserves Spéciales ou Sanctuaires de Faune; (5) Zones d'Intérêt Cynégétique; (6) Zones de Chasse.

Table 3. Species which are intergrally protected in Guinea. (Scientific names as listed by Guinea's Faunal Code)

Suidae
Giant forest hog (*Hylochoerus meinertzhageni*)

Bovidae
Giant Derby Eland (*Tragelaphus (Derbianus) gigas*)
Bongo (*Tragelaphus euryceros*)
Forest buffalo (*Syncerus caffer nanus*)

Trichedchidae
Manatee (*Trichechus senegalensis*)

Elephantidae
Savanna elephant (*Loxodonta africana*)
Forest elephant (*Loxodonta pumilio*)

Nandininae
Nandine (*Nandinia binotata*)

Colibidae
Van Beneden colobus (*Colobus (Procolobus) verus*)

Manidae
Giant pangolin (*Manis (Smutsia) gigantia*)

Anomaluridae
Long-eared fyling mouse (*Idurus macrotis*)

Felidae
Leopard (*Panthera pardus*)
Golden Cat (*Profelis aurata*)

Canidae
Wild Dog (*Lycaon pictus*)

Galagonidae
Senegal galago (*Galago sengalensis*)

Loridae
Bosmans Potto (*Perodictius potto*)

Hominidae
Chimpanzees (*Pan troglodytes*)

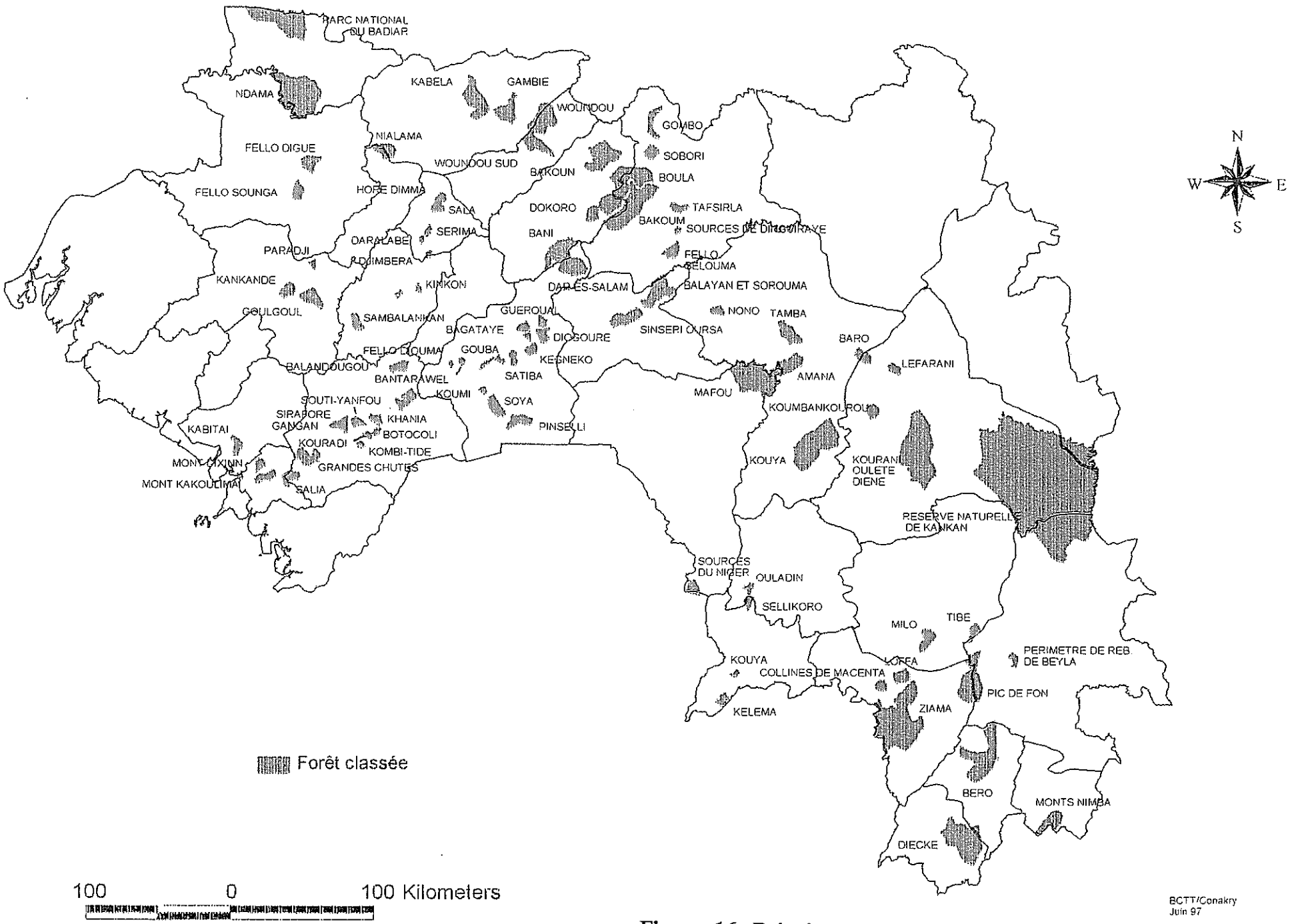


Figure 16. Principal Classified forests in Guinea

METHODS

METHODS

Deciding on a field methodology to estimate the overall population of chimpanzees in the 245,857km2 of Guinea in 18 months was a daunting task! Guinea proposed unique problems given its highly heterogeneous climate, vegetation, topography, and culture; its inaccessibility and poor road structure, and the paucity of background information that was available. In order to determine how many animals are in a given area, the ideal method would be to conduct a long term study so that all individuals can be identified (e.g. Butynski, 1990; Marchesi *et al.*, 1995). As this is not usually possible due to limitations in time and resources, especially when sampling over a large area, other methods must be used.

Questionnaires are one method previously employed to estimate chimpanzees numbers (eg. Sugiyama and Soumah, 1988). These have the advantage of being able to cover a large area with limited resources. Questionnaire however, are not always reliable and sources can vary considerably.

Reconnaissance surveys (surveys in which a given area suspected to have chimpanzees is explored) can be excellent for identifying presence and absence of chimpanzees as well as collecting information on for example, diet, nesting behaviour or habitat use. They can also be useful for general assessment of chimpanzee habitats. Reconnaissance surveys are important in order to identify the existence of viable chimpanzee populations, however, only very general and subjective information on chimpanzee numbers can be determined using this methodology.

In order to determine the density of large mammals, the line transect method (Burnham *et al.*,1980) is one of the most frequently used methods today. This method is believed to give good estimates of density for apes (eg. Carol, 1988; Fay 1989; Hashimoto, 1995; Marchesi *et al.*, 1995; Plumtre and Reynolds, 1996; Tutin and Fernandez, 1983, 1984, White, 1994; Williamson and Usongo, 1995). This method is advantageous in that it gives unbiased and objective results.

Transects, however, can be very time consuming, (getting to the transect as well as walking the transect itself) and using transects alone can leave little time for the collection of other information concerning chimpanzees and other wildlife. If a randomly placed transect does not fall within chimpanzee habitat, for example, very little information is gathered other than chimpanzees do not exist there!

For this study therefore, it was decided that all three of the above methods would be used in order to determine chimpanzee distribution and abundance in Guinea. Questionnaires were used mainly for preliminary information on the location and abundance of chimpanzees. Reconnaissance surveys were used to visit selected areas in order to confirm the presence or absence of chimpanzees and other species of large mammal, to interview hunters and to assess the habitat. The straight line transect methodology was used in order to statistically quantify the number of chimpanzees in Guinea. These methods are described in more detail below.

ITINERARY

The census component of the *Projet de Conservation des Chimpanzés en Guinée* started in November 1995. The first two months of the project were spent in Conakry and Labé obtaining equipment, meeting government officials, making contact with other projects and non-

governmental organisations, designing and distributing of the questionnaire and organising other logistics of the project.. An Ordre de Mission was obtained allowing the car to travel anywhere in the country for the duration of the project (**Appendix II**).

The town of Labé in the Fouta Djallon was used as a base. Normally, about one week each month was spent at the base in order to restock equipment and to write up field notes and quarterly reports. Visits to Conakry were made regularly for car maintenance and to meet the project director.

I. QUESTIONNAIRES

A questionnaire (**Appendix III**) concerning the distribution and abundance of chimpanzees and other large mammals in Guinea was distributed throughout the country to every Chef de Cantonnement for each of the 336 Sous-Préfectures (not including Conakry, Guinea's capitol city). The questionnaire was written by myself, the project director, Saliou Diallo, Sagna Satenin and Frank Viaux, and was designed to be as simple and as short as possible. Many of the questions required merely marking the correct answer or one-word answers. Black and white pictures from Dorst and Dandelot, (1970) accompanied the list of large mammals. A letter from the late Mr.CONDE Sera Bako, then the Directeur National des Forêts et de la Faune accompanied the questionnaire (**Appendix IV**) as well as one page explaining the goals of the *Projet de Conservation des Chimpanzés en Guinée* (**Appendix V**)

Not all questionnaires were returned by the specified date. In attempts to increase the percent of Sous-Préfectures which responded, the questionnaire was sent out a second time to those Préfectures that did not return the questionnaires, with a second accompanying letter (**Appendix VI**). Unfortunately, while the second set of questionnaires were being distributed, there was a shuffle in the administration and many of the Chefs de Sections and Chefs de Cantonnements were changed from their position. Still not all of the Chef de Cantonnement had returned the questionnaires by the second deadline and since this may have been a result of questionnaires getting lost in the change in the administration, the questionnaires were sent out a third and final time, addressed to each Sous-Préfecture that had not yet responded (**Appendix VII**).

Surprisingly it was not an easy task to find out the number and the names of all Sous-Préfectures in Guinea. Even lists from the same sources had different numbers of Sous-Préfectures and the spelling varied considerably. In the end a list was compiled, combining all lists and giving a total of 336 Sous-Préfectures, not including those of the capitol city Conakry.

II. RECONNAISSANCE SURVEYS

The 1:1,000,000 tourist map and the 1:200,000 maps of Guinea were used to locate the best circuit for each journey in order to make the most economical trip in terms of fuel, energy and time. Although more recent large scale maps exist for certain areas of Guinea (especially where large projects are in process) the 1:200,000 maps are the only maps available that cover the whole territory of Guinea. Unfortunately, these maps are very old (some as old as 1929) which meant that sometimes villages or even roads no longer existed where they were marked on the maps. This made journeys extremely unpredictable and could increase travel time

considerably.

Typically during each voyage, one day was spent driving until the destination was reached. The next day was spent in the field doing either reconnaissance surveys or transects and the next day was spent driving to the next destination etc. Due to this fairly demanding schedule, it was found extremely helpful to hire a driver for such long journeys. It was also found important to have someone stay with the car while I was in the field, due to both the possibilities of theft and of bush fires. An additional benefit to having a representative of the project remaining in the villages during the day, was that it allowed more time for explaining the project to villagers, visiting schools and talking to the elders of the village etc. A driver was therefore hired for the duration of the survey.

Although French is the official language of Guinea, it was found that people in villages outside of the major towns, rarely spoke French. It was decided therefore, that a translator was needed. The translator/field assistant was different for each region of Guinea, except for Guinée Forestière where a field assistant was found in each new location visited. Due to a great deal of missionary activities in Guinée Forestière many people even in remote villages speak French whereas this was not true for the rest of Guinea.

It was found to be much more beneficial to have a translator as part of the census team than to hire a translator from the same village as the hunter. This was mostly because an understanding could be built up between myself and the translator as to what questions were being asked and why. The translator could also inform me when he believed that the hunter was not telling the truth, whereas this would rarely occur if he was hired from the same village. In addition, the assistant could be trained in the use of the equipment and in methodologies involved in the census, which greatly facilitated especially the transect work. It was also enormously helpful to have an extra pair of hands around camp. In total, therefore, the census team consisted of three people: myself, a driver and a translator/field assistant. This size of a team was found to be ideal.

Previous to working in any Préfecture, the following people were contacted to inform them of the aims of the project and to discuss with them the itinerary for the survey in their Préfecture.

(1) the Chef de Section des Forêts et de la Faune
(2) the Deputy Nationale de Rural Developments and Environment
(3) the Préfet

These visits were required by the government of Guinea and the Direction Nationale des Forêts et de la Faune so that the Ordre de Mission could be signed and so that government officials were aware that we were in their area of jurisdiction. Information from the questionnaires as well as from these meetings, helped to decide which areas would be visited in each Préfecture. Greater details on roads could also be learned at this stage.

From here we would drive to the Sous-Préfecture nearest to the area in which we wished to work. Before working in any Sous-Préfecture, the following people were contacted for the same reasons as given above:

(1) the Chef de Cantonnement
(2) the President de Communité Rural et Developement
(3) the Sous-Préfet

From here we would head to the village closest to the area we wished to visit. Arriving in the village we would ask to see the chief of the village to explain our purpose in his area and the objectives of the project. We would ask if we could go into the forest with a hunter the following day and explained the work that we needed to do. We would then ask permission to camp in the forest and then usually go with someone from the village to select the site in order to avoid camping on any sacred or forbidden areas.

Although the DNFF agents played an essential role in guiding us to important areas for chimpanzees through the questionnaires and meeting with them in person, it was preferred that the actual work in the field was conducted without a DNFF agent. This is because one of the goals of the *Projet de Conservation des Chimpanzés* is to work with hunters. Hunters usually have a deep understanding and knowledge and wildlife as their livelihood depends on this. Working with hunters from the area also meant that they knew the area extremely well and were able to guide us to key zones important for wildlife. Working with hunters also means that information could be gathered about attitudes of the hunters and people in their village towards wildlife. Although DNFF agents may have a good rapport with hunters in most areas, it was observed that this is not always the case and hunters may not speak the truth about hunting practices in the presence of a DNFF agent. In order to avoid such biases in the results, it was decided, as a rule that DNFF agents should not be present during visits to villages.

In addition, sometimes areas that were selected to be visited were a long distance from the base of the Chefs de Sections or the Chefs de Cantonnements. If DNFF agents were brought with us for visits to remote villages, instead of being able to continue on to the next destination when the work was completed, we would have had to drive all the way back to the agents base to drop him off, before being able to continue on. This becomes logistically absurd in that it would have more than doubled the travel distance and therefore been extremely expensive in terms of time, fuel and energy.

During the day of the Reconnaissance Survey, the hunter, I and the field assistant/translator would go into the forest to look for signs of chimpanzees and other large mammals. We also asked the hunter to take us to key areas such as water sources, favoured nesting areas etc. We usually left camp by 7:00 am and returned by 16:00 pm. While in the forest, all sign of large mammals, (including observations, audition, faeces, prints, feeding remains, etc.) were recorded. Chimpanzees sleep at night in nests and therefore nests can also be used as evidence for chimpanzee presence. All chimpanzee nests were recorded, noting the following information:

(1) The habitat-type where nest is located was noted. These included those vegetation categories as listed in the Study Site.
(2) The age-class of nest was recorded. This was determined following the guidelines of Tutin and Fernandez (1984):
(i) FRESH-vegetation green or not wilted and often urine or faeces found under the nest and presence of odour (**Plate 7**);
(ii) RECENT-vegetation dry and changing colour (**Plate 8**);
(iii) OLD-vegetation dead but nest still intact (**Plate 9**);
(iv) VERY OLD-nest beginning to disintegrate (**Plate 10**).
(3) The height of nest above the ground (estimated to the nearest meter) was recorded.
(4) The species of tree in which the nest was built was recorded.
(5) The diameter at breast height (DBH) of the tree in which the nest was built was recorded
(6) The number of the nest group to which the nest was thought to belong was recorded. Chimpanzees often make their nests close to other chimpanzees at night. Nests were decided to belong to the same group if they were of the same age and within approximately 20m (following Marchesi *et al.*, 1995).

Plate 7. A fresh nest

Plate 8. A recent nest

Plate 9. An old nest

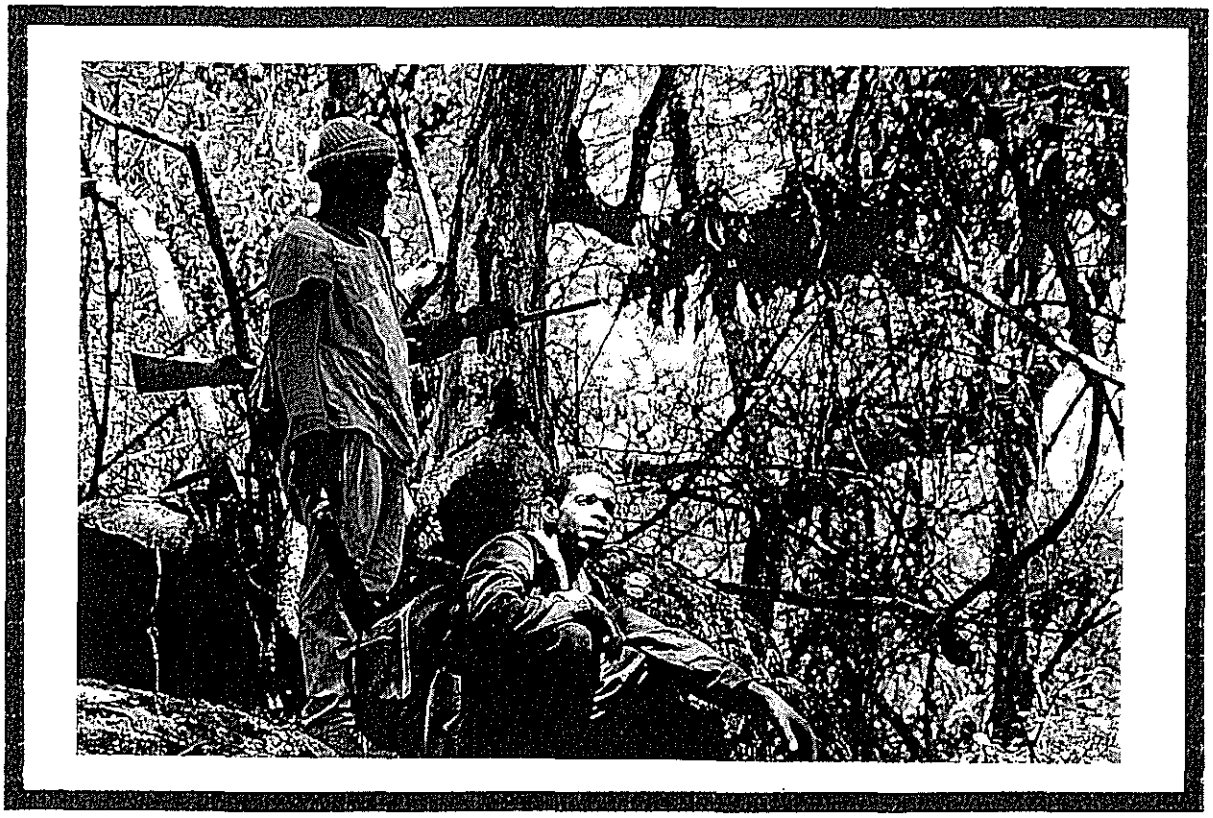


Plate 10. A very old nest

While in the forest, interviews were conducted with the hunter. Although the questionnaire in **Appendix VIII** was used as a guideline, the interview was not conducted with pen and paper or a recorder as this was found to be intimidating for the hunter. The interviews were not formally structured so that areas of particular interest could be explored in more detail. Questions were asked throughout the day.

Fecal analysis has been found to be a good method for studying the diet of wild chimpanzees. (eg. Tutin and Fernandez, 1993) therefore while in the field, any chimpanzee faeces that were found were examined for seeds and leaf fragments and food remains as an indication of chimpanzee diet.

Hunters were also asked to examine colour photographs of mammals from Dorst and Dandelot, (1970) in order to identify different species. It was found to be best to look at the book and to ask which animals were present before going into the field. This way, the local names of each animal could be recorded, which facilitated identification of animal sign when they were found. Hunters seemed to more easily recognise and to responded more quickly to designs of animals as opposed to photographs.

III. TRANSECTS

The transect method involves randomly placing transects, or straight lines, throughout the area to be sampled. The observer walks the straight line counting all objects seen on either side of the line. In this case the objects counted were nests. Every adult chimpanzee makes one nest every night (except see below) and therefore chimpanzee nests can be used as an index of the chimpanzee abundance. The number of nests per unit area sampled can be calculated, and as long as the transect location was chosen randomly and the mean duration of nests is known, the number of chimpanzees for the desired area can be extrapolated.

Location of the transects

Using the 1:1 000 000 map of Guinea, a latitude/longitude grid was superimposed onto the country, giving 37 grid cells of approximately 12,365 km2. There were 9 complete and 28 incomplete grid cells. The incomplete grid cells were combined in such a way to approximate the area of a full grid-cell, giving a total of 21 sample areas (**Figure 17 and Table 4**).

These sample areas were then further divided into "minutes", giving 144 squares for each sample area. Two squares squares per sample area were then randomly chosen. A square transect of 5200 m (1300 m each side) was walked, starting in the top right hand corner of each of the randomly chosen squares. This gave a total of 42 transects x 5200 m =218,400 m of transects walked.

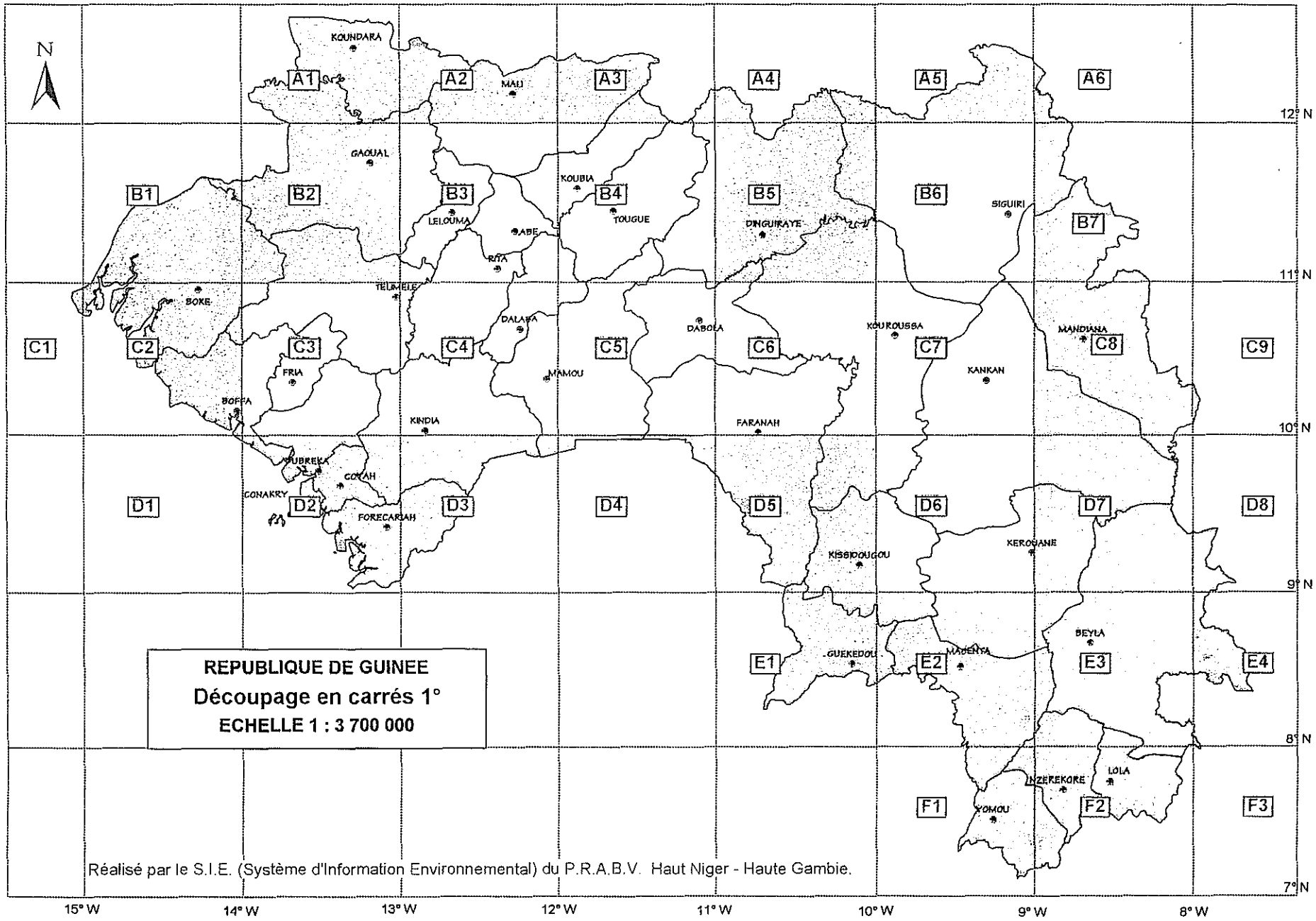


Figure 17. Map of Guinea showing approximate location of longitude and latitude grid.Table 4 shows how these grid squares were combined in order to give samples squares with approximately the same area.

Table 4. Table showing the way in which incomplete grid cells were combined to approximate 21 complete sample squares

Sample area 1: Grid cell A1 + A2
Sample area 2: Grid cell A3 + A4 + A5 + A6 + B7
Sample area 3: Grid cell B1 + C1 + C2
Sample area 4: Grid cell B2
Sample area 5: Grid cell B3
Sample area 6: Grid cell B4
Sample area 7: Grid cell B5
Sample area 8: Grid cell B6
Sample area 9: Grid cell C3
Sample area 10: Grid cell C4
Sample area 11: Grid cell C5
Sample area 12: Grid cell C6
Sample area 13: Grid cell C7
Sample area 14: Grid cell C8 + C9
Sample area 15: Grid cell D2 + D3 + D4
Sample area 16: Grid cell D5
Sample area 17: Grid cell D6
Sample area 18: Grid cell D7 + D8
Sample area 19: Grid cell E1 + E2
Sample area 20: Grid cell E3 + E4
Sample area 21: Grid cell F1 + F2

Chimpanzee nests

Given that unhabituated wild chimpanzees are often very difficult to see, counting nests provides a easier alternative to counting the animals themselves, provided that the nest decay rate is known. In order to determine how long a chimpanzee nest lasts, it is necessary to find nests that were made the previous night and monitor these nests until they are no longer visible. Since I was travelling almost continuously, it was not possible to return to visit the same nests, therefore reliable nest monitors were chosen in two locations in the Préfecture of Labé in the Fouta Djallon.

Nine nests were monitored in the Forêt Classée of Gali in the Sous-Préfecture of Noussi and 12 nests were monitored in the Sous-Préfecture of Dalein. Nests that had been slept in the previous night were identified by myself with the nest monitor. Nest monitors then visited the chosen nests once a week and to note whether the nest was still present. If the nest was present, it was assigned to the age categories as listed above for the reconnaissance surveys.

Walking the transect

The location of the start of the transect was located in the field using a GPS. The hunter,

myself and the research assistant walked the transect. A compass was used to indicate the direction of travel. All chimpanzee nests observed on either side of the line were noted and the following information was recorded:

(a) distance along the transect in meters to the point perpendicular to the nest;
(b) perpendicular distance from the transect line to the centre of the nest (to nearest meter);
(c) habitat-type (see Study Site);
(d) age-class of nest (see above);
(e) height (estimated to the nearest meter) of nest above the ground;
(f) species of the tree in which the nest was built ;
(g) diameter of the tree in which the nest was built;
(h) height (estimated to the nearest meter) of the tree in which the nest was built;
(h) whether the nest was to the left or right of the transect line
(i) the number of the nest group to which the nest was though to belong (as described above).

Along the transect line, changes in the habitat type were noted so that the proportion of the habitat type represented in each transect could be calculated.

All evidence of the presence of other large mammals was recorded, but quantitative data was not collected on other species due to restraints in time.

Calculation of chimpanzee density

In earlier census methods, a set strip width was searched (*e g*. Barnes & Jensen, 1987). An alternative method is to count all nests which are seen on both sides of the transect and to determine the "effective strip width" (w) *post hoc* and objects at a greater distance than w are ignored. The w is determined by plotting the number if objects detected at set intervals of perpendicular distance from the transect. The "detection function" (g(y)) is the probability of detecting an object given that it is at distance y from the transect. Data is then truncated so that so that 5-10% of the objects detected at the largest distance are not used in the analyses.

The number of nests detected will probably decrease with the perpendicular distance from the transect due to decreased visibility, therefore the number of actual nests seen per unit area is probably an underestimate of true nest density. In an attempt to resolve this problem, a line can be fitted (by least squares) to the data. The area below this curve divided by the area below horizontal line drawn from g(0), is the proportion detected (p). The number of objects detected (n) divided by the proportion detected (p) gives an estimate of the true estimated population size on the transect. This number then has to be multiplied by the overall area of interest in order to give the overall estimate of population size.

The program DISTANCE was chosen for data analysis because it is currently the most robust program available (Buckland *et al.*, 1993). The accuracy of the estimates generated depends on how well they conform to the assumptions (Burnham *et al.*, 1980). These assumptions are:

(1) In order to meet statistical requirements, the number of observations should be at least 60 to 80
(2) Objects directly on the line are always detected. If this assumption is not met then the population will be underestimated. A large effort therefore, should be made to detect all objects on the line.
(3) Objects are detected at their initial location, prior to any movement in response to the

observer. This assumption can easily be met in the present study because nests are stationary.
(4) Distances and angles are measured accurately
(5) The transect line is placed randomly with respect to the distribution of objects
(6) Objects of interest are identified correctly. This may present a problem in areas where there are gorillas and chimpanzees as it is possible to confound their nests. There are only chimpanzees in Guinea however, so this does not pose a problem.

The mean density of chimpanzees per km2 can be calculated from nests using the following equation:

$$\frac{\text{N° nests recorded}}{\text{area sampled (km2)}} \times \frac{1}{\text{mean number days nests remains visible}} = \text{number of weaned individuals per km2}$$

Plumptre and Reynolds (1996) found that 18.8% of nests were first constructed as day nests. This was data from following 48 chimpanzees singly from dawn until dusk over a period of three months. Marchesi *et al.*, (1995) found that day-nests in Taï could sometimes be as high as 65% of the nests. Normally day nests are not as well constructed as night nests and and they are often distinguishable from night nests. Others however, are indistinguishable. The lifetime of day nests is probably much shorter than for night nests. Marchesi *et al.*, (1995) estimate that the number of nests should be reduced by 20% and so this correction factor will be used in the present study.

Plumptre and Reynolds found that 17.5% of the population did not build nests and Ghiglieri (1984) estimated that 17.4% of the population in the Kibale Forest did not build nests. This represents the population of chimpanzees that are too young to make their own nests and still sleep with their mothers. This percent was not taken into consideration in the present study and estimates given are therefore for the *number of weaned chimpanzees.*

Extrapolation to the number of chimpanzees in Guinea

Given that the sample size is large enough, density of chimpanzees for each habitat type can be calculated. In order to extrapolate for the habitat type in the whole country, an accurate and recent vegetation map in needed. At the time of this study, such a vegetation map was not available. The only vegetation map that exists for Guinea is very general and out of date (CTFT, 1989). It was, nevertheless, the only vegetation map available to the *Projet Conservation des Chimpanzés* at the time of the study. It is hoped that on the future, more recent and updated vegetation maps can be used to recalculate chimpanzee density with data from the transects in the present study.

The land-use map drawn up by CTFT in 1989 at a scale of 1:700,000 is a synthesis of work carried out in 1985 (south-east forest zone), 1986 (west) and 1987 (centre and north-east Upper Guinea). The data are derived from 1979-80 aerial photography taken by the Japan International Cooperation Agency (JICA) and updated using Landsat MSS 1984-1985-1986 imagery. Vegetation for this map has been categorised into 29 different categories. *Système d'Information Environnemental du P.R.A.B.V. Haut Niger-Haute Gambie* put this map into a computer and calculated the surface area for each of these vegetation categories using a GIS system.

RESULTS PART ONE: CHIMPANZEE CENSUS

RESULTS PART ONE: CHIMPANZEE CENSUS

I. QUESTIONNAIRE

Return rate

In total 30 out of 33 Préfectures (91%) returned the questionnaires. The only Préfectures whose completed questionnaires were not received were Coyah, Kissidougou and Macenta. In total 259 questionnaires were received which represents 77% of all 336 Sous-Préfectures. The names of those who completed the questionnaires and thus participated in this survey are given in **Appendix IX.**

Reliability of Questionnaires

Of the 235 chef de cantonnement that answered this question, 25% said that they went into the field every day, 65% every week and 10% every month. Of the 189 Sous-Préfectures where chimpanzees were said to be present, the chefs de cantonnement reported knowing they were there because 121 had seen nests (64%), 126 had seen tracks (67%), 154 had heard their vocalisations (81%), 140 had seen them (74%), and 178 knew someone else that had seen them (94%).

During controls in the field, 40 sites were visited where Chefs de Cantonnement had claimed there to be chimpanzees and in 100% of these chimpanzee were in fact confirmed to be present, i.e. the Chefs de Cantonnement were correct.

Chimpanzee Distribution and Abundance

Chimpanzees were reported to be present in all but two Préfectures in Guinea: Beyla and Siguiri. Chimpanzees were reported to be present in 191 Sous-Préfectures, absent in 71 Sous-Préfectures and 73 Sous-Préfectures did not answer (**Figure 18**). Where chimpanzees were reported to be present, they were said to be abundant in 21%, common in 57%, and rare in 22% of the Sous-Préfectures (**Figure 19**). In Sous-Préfectures were chimpanzees were said to be present, their numbers were said to be increasing in 66%, stable in 5%, decreasing in 25% and for 4% this question was not answered.

Question 3c asks where the chefs de Cantonnements know there to be chimpanzees in their Sous-Préfecture and Question 4 asks if they have seen chimpanzees in another Sous-Préfecture. Summarising these results, 295 locations were given for the presence of chimpanzees in the Fouta, 188 in Guinée Maritime, 103 in Haute Guinée and 20 in Guinée Forestière. This gives a total of 606 sites which are listed in **Appendix X.** There were sites in the field visited where chimpanzees were present and which were not reported in the questionnaire, suggesting that this list is an underestimate of the number of sites where chimpanzees exist. It is also possible however, that site were close enough together so that the same community was reported twice.

Chimpanzees usually range in communities with between 15 and 120 individuals (Kingdon, 1997). **Table 5** gives a list of several studies of chimpanzee populations of known size:

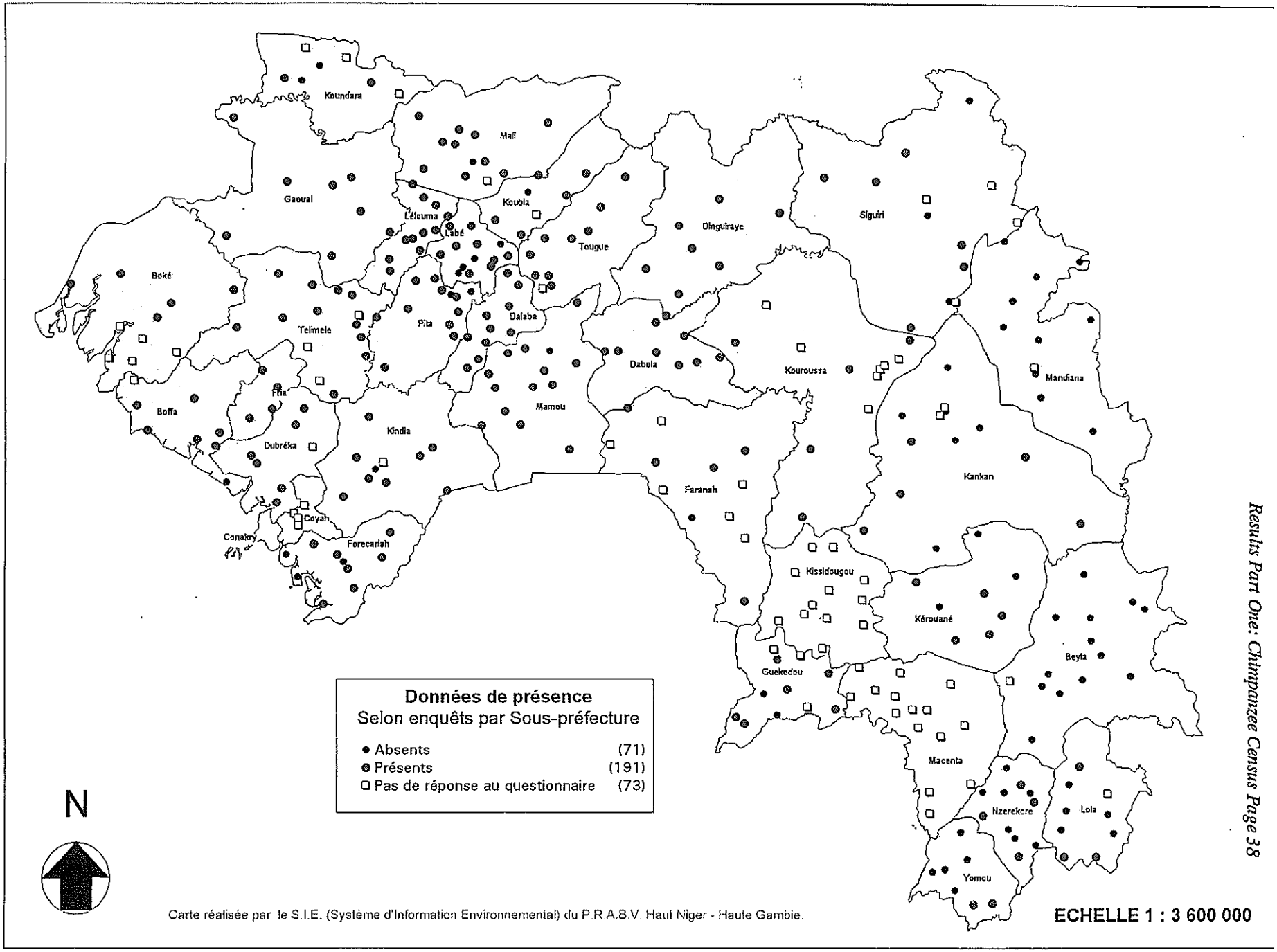


Figure 18. Presence and absence of chimpanzees by Sous-Préfecture

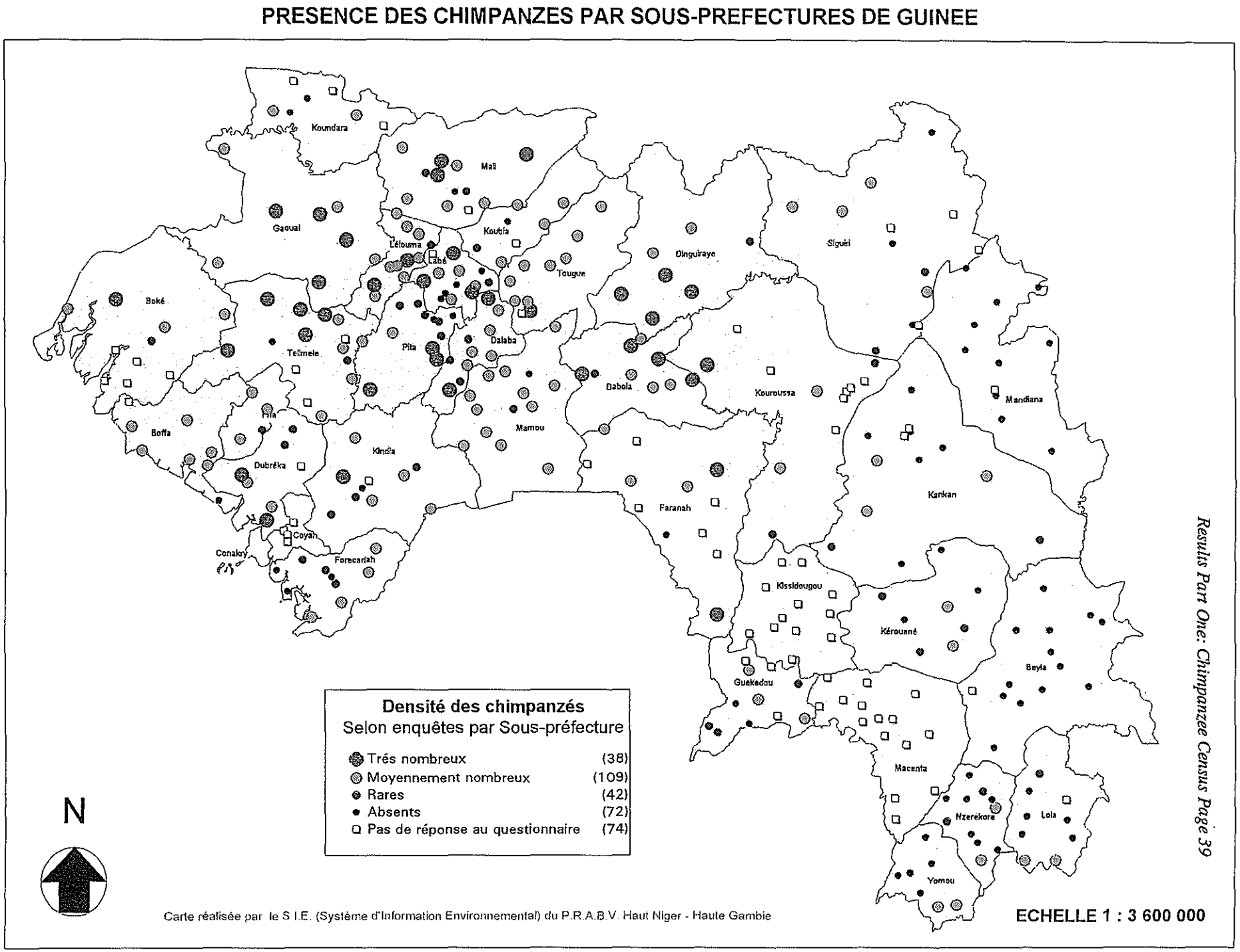


Figure 19. Density of chimpanzees by Sous-Préfecture

Table 5. Some estimates of chimpanzee community and range sizes

COUNTRY	SITE	SOURCE	COMMUNITY SIZE	RANGE SIZE (km2)
Tanzania	Mahale Mountains	Nishida et al.(1990)		
	K group		10	7
	M group		90	21
Tanzania	Gombe	Wrangham (1977) and Goodall (1986)		
		1960	60	24
		1974	44	15
		1977	53	17
		1981	54	9.6
		1982	53	11.2
Guinea	Bossou	Sugiyama (1994)	16-22	6
Guinea	Kanka Sili	Albrecht and Dunnett (1971)	50	5
Côte D'Ivoire	Tai	Marchesi et al., (1995)	79	26
Senegal	Mt.Assirik	Baldwin et al. (1982)	28	278-333

The population of chimpanzees in Bossou in the prefecture of Lola has an average of about 20 individuals (Sugiyama and Koman, 1979a). This community is representative of other communities of chimpanzees in Guinea in that the chimpanzees are confined to an isolated patch of forest on a mountain. They have a core foraging area of about 6 km2 (Sugiyama, 1994). It therefore seems appropriate to use the lower limit of the range of chimpanzee group size for estimating the number of chimpanzees in Guinea.

If we multiply 20 individuals per community by the number of locations chimpanzees are said to be present from the questionnaires, we arrive at a number of **12,120** in the whole country. On one hand this may also be underestimated given that as said above, 606 is an underestimate of the number of locations with chimpanzees present and also because the group size used is at the extreme lower limit for group sizes of known communities of chimpanzees. On the other hand this may be an overestimate as certain locations may be close enough that the same group has been reported twice.

The Chefs de Cantonnements were also asked to estimate how many chimpanzees they believed there to be in their Sous-Préfecture. They were also asked how many groups there are and how many individuals there are in a group. For those that gave an answer for the number of groups and the number of individuals in a group, but did not give an overall number, this number was extrapolated. Multiplying the number of groups by the individuals for each group, sometimes gave a different number from the total number of individuals they reported, in which case, a minimum and maximum was use.

For example, if the Chef de Cantonnement reported:

Number of groups=3
Individuals per group=10
Total number of individuals in Sous-Préfecture=40

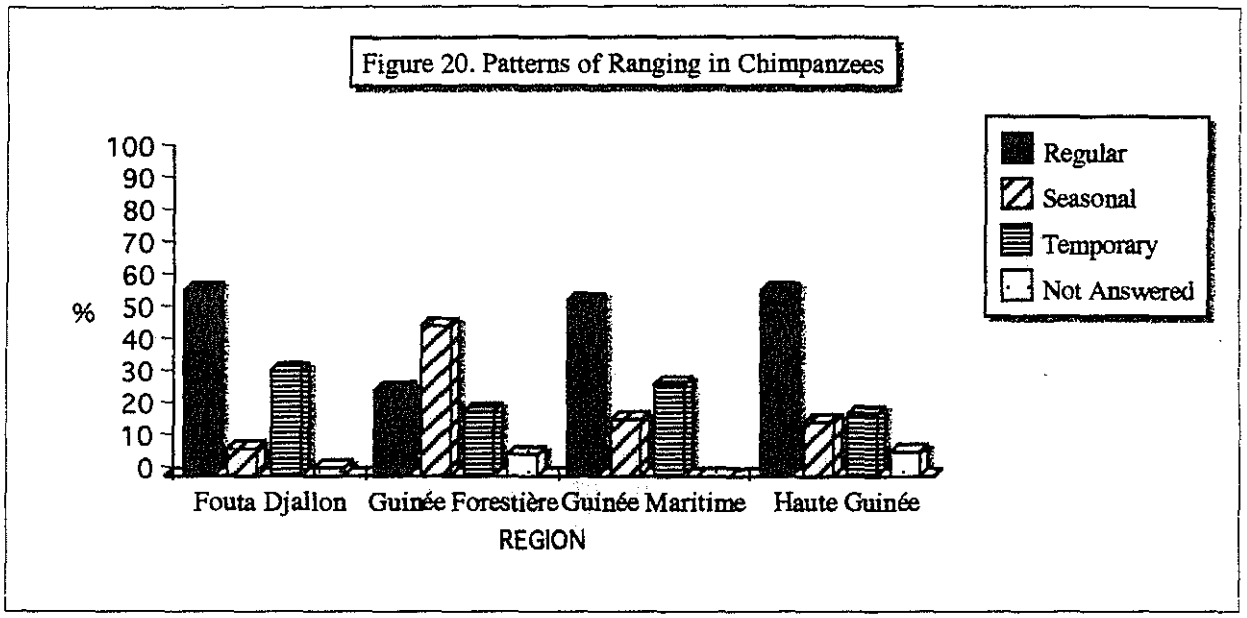
In this case, 30 (i.e.3x10) chimpanzees was calculated as the minimum and 40 chimpanzees as the maximum.

Sometimes Chefs de Cantonnements did not give a number. In this case, the mean population

size was calculated for those who reported chimpanzees were Abundant (Min:154 ±45, Max:277±88, n=29), Common (Min:49±7, Max:107±21, n=81), Rare (Min:16±4, Max:19±4, n=31). These averages were used for those who had answered question 5a but not 5b or c. Summing all the population estimates for the Sous-Préfectures, the minimum number of chimpanzees in Guinea is given as **11,949** and the maximum number is given as **23,123**.

Ranging patterns of chimpanzees

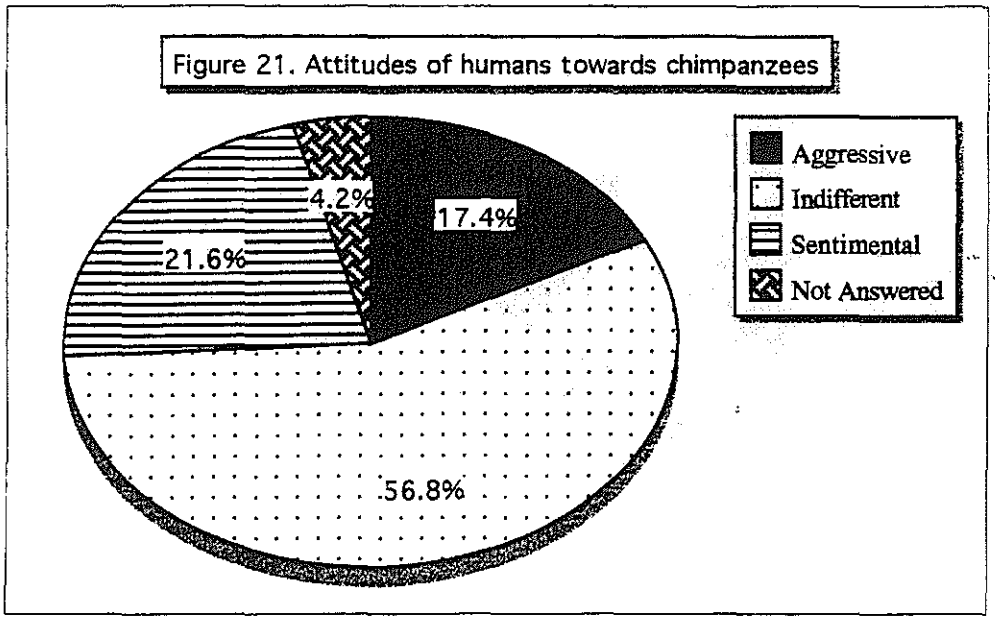
When the Chef de Cantonnement were asked about the ranging patterns of the chimpanzees, 54% said that populations were regularly present, 15% seasonally present, 27% temporarily present and 3% did not answer the question. When looking at regions individually, the striking difference here was that in Guinée Forestière, populations seemed to be far more seasonal than elsewhere in Guinée (**Figure 20**)



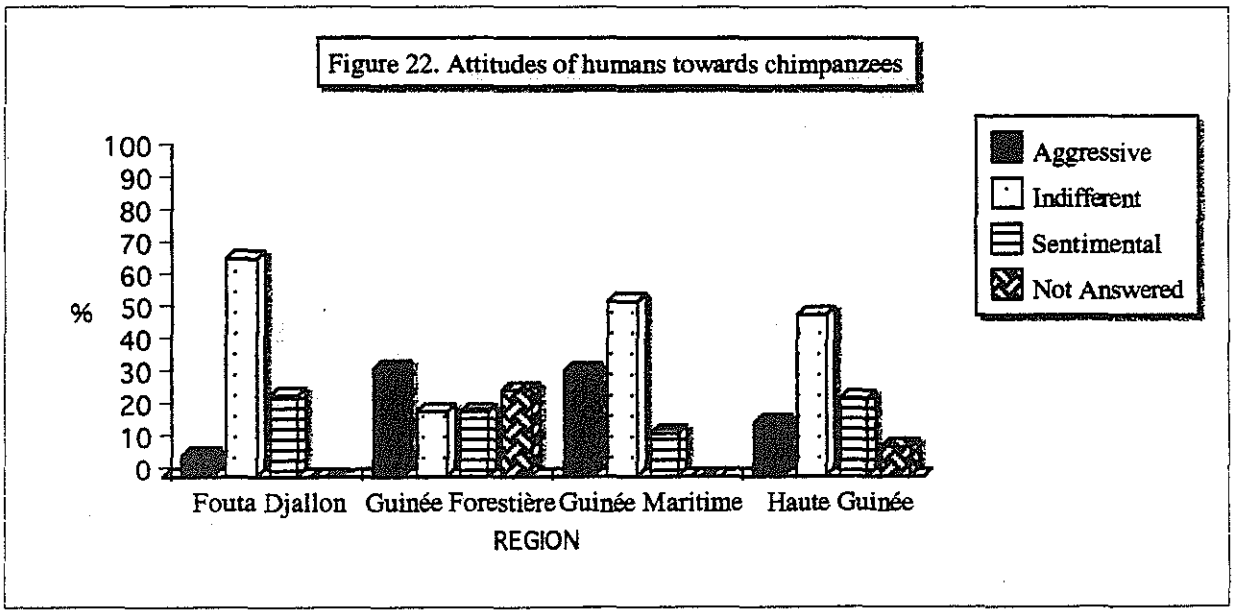
When asked if populations were localised, 73% of Chef de Cantonnement replied that populations were in fact localised. In total 86% of Chef de Cantonnement said that chimpanzees approached villages at certain times of year. The time of year and the reason why chimpanzees approached was highly variable. The greatest reason seemed to be the maturation of cultivated food such as mangoes, oranges, palm fruit, bananas, maize, sorghum, rice and millet. Wild foods that grow close to villages were also mentioned, including *Parinari excelsa, Parkia biglobosa,* and *Adansonia digitata, Spondias monbin, Cola cordifolia.* Chef de Cantonnement also mentioned that chimpanzees may approach villages to raid crops during periods of fruit scarcity in their natural habitat.

Attitudes of People towards chimpanzee

In total, 57% of people were indifferent, 22% sentimental, 17% aggressive towards chimpanzees and 4% did not answer the question (**Figure 21**)

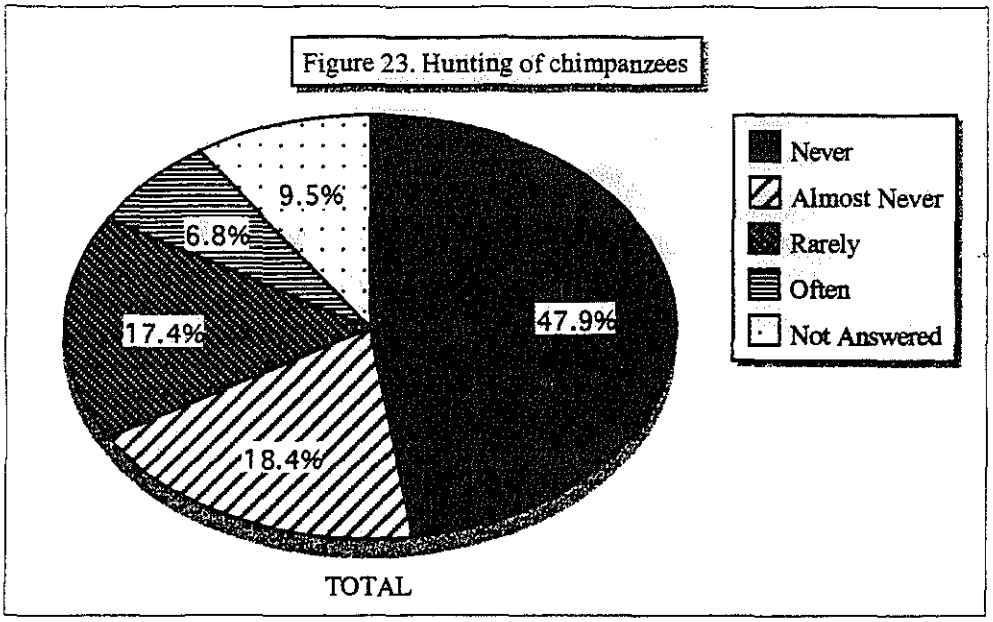


Far less people were aggressive towards chimpanzees in the Fouta than in the other regions of Guinée (**Figure 22**). The reasons given why people are aggressive towards chimpanzees is because they destroy crops, palm trees, bee hives and eat their livestock and because women and children are scared of them

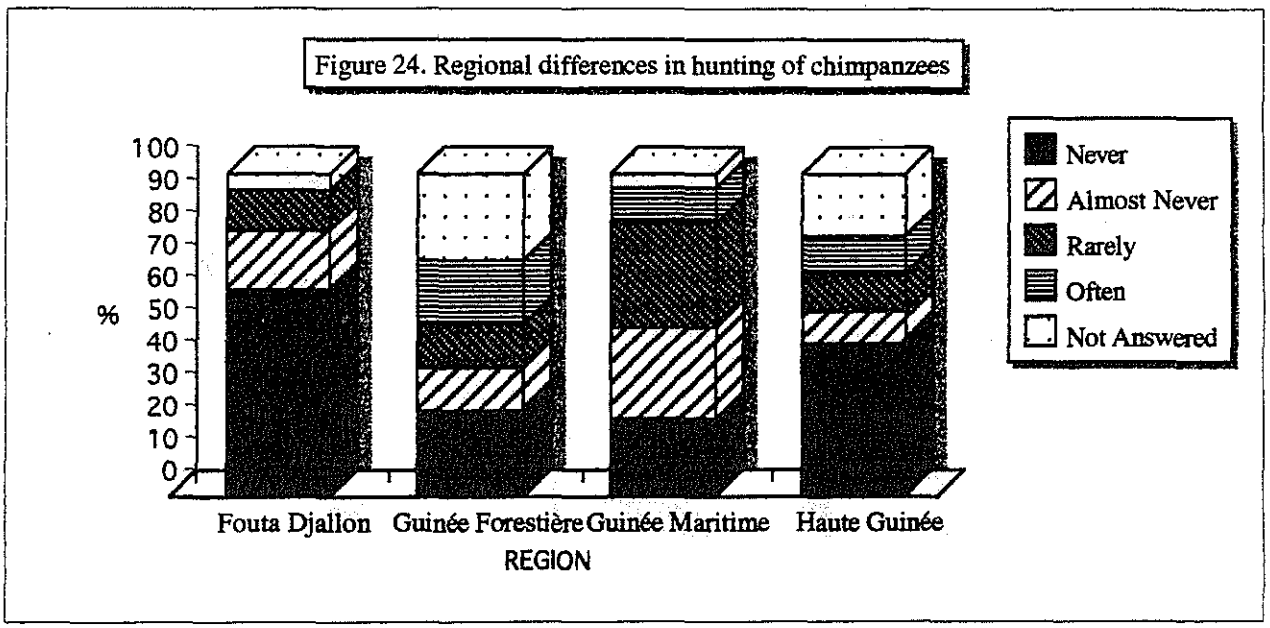


Hunting of chimpanzees

In total 48% of Sous-Préfectures, chimpanzees are never hunted, 18% almost never, 17% rarely and 7% often hunted (**Figure 23**).

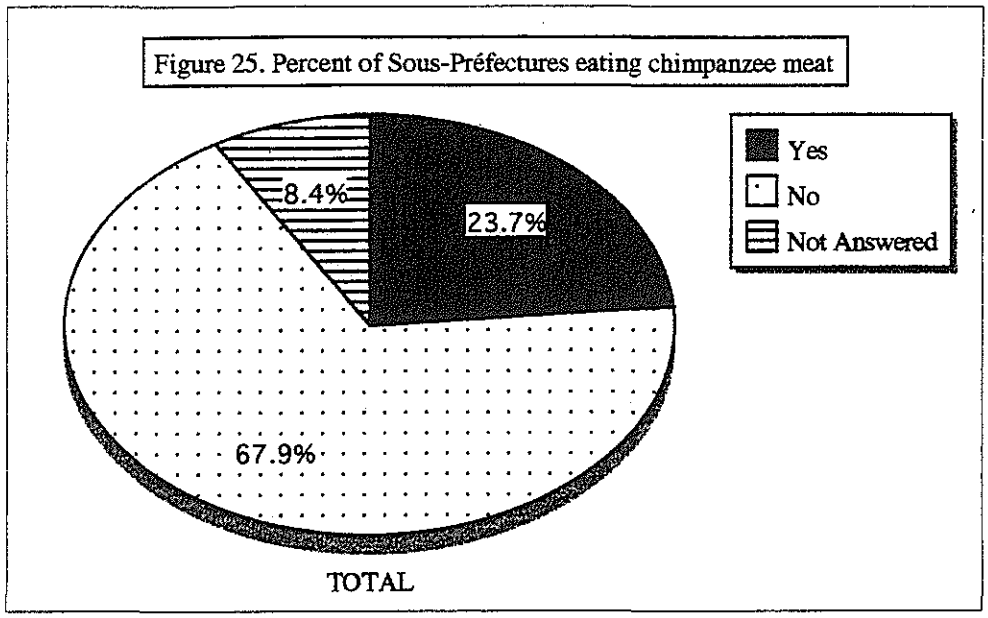


In the Fouta Djallon, chimpanzees are hunted far less than in the rest of Guinea (**Figure 24**).

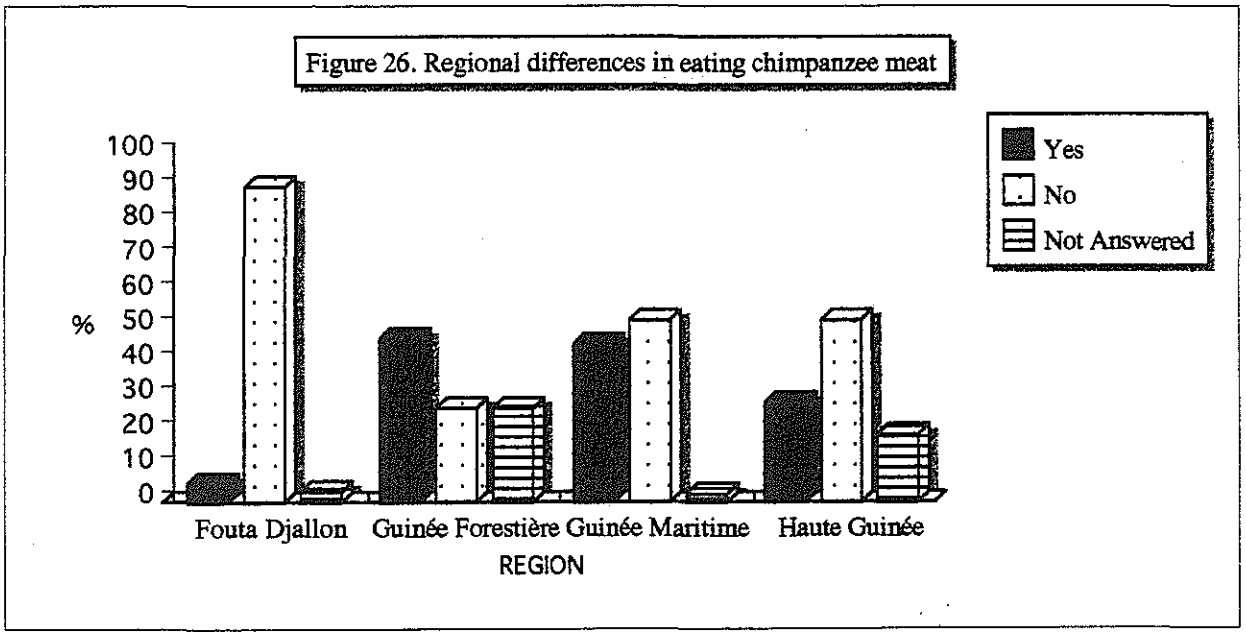


Meat eating and exportation

In total, 24% of the Sous-Préfectures do eat chimpanzee meat and 68% do not and 8% did not answer this question (**Figure 25**).



In the Fouta Djallon, meat is eaten in far less Sous-Préfectures than in other regions (**Figure 26**). Of those that said that they did eat meat, 7 said only a little was eaten, 4 said a medium amount and 1 was unknown. The meat was only reported to be exported in 3 Sous-Préfecture, Molata (Kindia), Manbia (Kindia) and Tokoumou (Kankan).



Proverbs and legends about chimpanzees

Proverbs and legends can help give insight into people's beliefs and feelings towards chimpanzees. In the Questionnaire, the Chefs de Cantonnements were asked in Question 10 if they knew of such stories and these were combined with the same question asked to hunters (See Hunter Interview in Appendix VIII) to give the summary provided in **Appendix XI.**

Laws or religious customs protecting chimpanzees

When asked if there were any laws or religious customs protecting chimpanzees in Question 11, again the answers were quite variable. The main answers given are as follows:

Chimpanzees used to be humans but were transformed into chimpanzees by God because they went against His divine wishes (examples given in the proverbs **Appendix XI.**). Since chimpanzees used to be humans, it is forbidden to kill them or to eat their meat

Families with certain last names are not allowed to kill chimpanzees because chimpanzees are their "totem" animal. For example, anyone with the family name "Monée" in the Kpèlè country has chimpanzees for their "totem" because a chimpanzee saved the life of one of their elders who was lost in the forest and guided him to his hamlet. When the elder returned to the village, he forbade the eating of chimpanzee meat. A similar story is given as to why those in Manon villages with the family name " Mamy" can not eat chimpanzees. The family with the last name "Camara" is also forbidden to eat the meat of chimpanzees . In Guinée Forestière, all who have the name "Kamano" must not eat chimpanzees.

Several answers note that chimpanzees are similar to human beings. It is forbidden to kill or to eat the meat of humans, therefore it is forbidden to kill or to eat the meat of chimpanzees. Many believe that whoever is capable of eating chimp meat could also eat human meat. Ways listed in which chimpanzees are similar to humans include:
-Chimpanzees have a menstruation cycle like women
-Chimpanzees don't have a tail
-Chimpanzees cry like humans and they breast feed their children.

Another reason given why it is forbidden to kill chimpanzees is that it is said that he who kills a chimpanzee will be cursed with bad luck, or illness or death in the village.

It is also said that everywhere chimpanzees live man will find a good life. Those who believe this do not kill chimpanzees because chimpanzees are believed to bring good-luck.

A Pastoral belief is that no pastoralist may kill a chimpanzee or they risk to lose their troop of cows.

Finally, it was noted that Islam forbids killing chimpanzees and also that there is a national law which protects chimpanzees

RESULTS PART ONE: CHIMPANZEE CENSUS

II. RECONNAISSANCE SURVEY

Chimpanzee Distribution and Abundance

In total 92 areas were visited for reconnaissance surveys (**Figure 27**). At least one site in each of the 33 Préfectures (not including Conakry) were visited. **Table 6** provides a summary of reconnaissance surveys and interviews with hunters at each of these sites. Interviews with hunters confirmed the presence of chimpanzees in 32 out of 33 prefectures. The only Prefectures where chimpanzees were not reported by hunters was Mandiana. In the 92 areas visited, hunters reported chimpanzees to be abundant in 21, common in 36, rare in 17 and absent in 18. They were said to be decreasing in 26 areas, increasing in 29 and stable in 6 (**Table 6**).

The presence of chimpanzees was confirmed either through observation, audition, tracks, faeces or nests in 30 out of 34 Préfectures. Chimpanzee presence was not confirmed in Conakry and Coyah (Guinée Maritime), Mandiana and Kankan (Haute Guinée) and Beyla (Guinée Forestière). Chimpanzee presence was confirmed in all Préfectures in the Fouta Djallon.

In Mandiana Préfecture, hunters said that it was possible that there were chimpanzees in the extreme south-east of the country. We travelled to the Sous-Préfecture of Saladou but even there hunters reported that chimpanzees no longer existed. The elders in the village vaguely remembered them but said that they had disappeared a long time ago. We did not see any sign of their presence

In Beyla Préfecture, hunters said that there are chimpanzees in in the Forêt Classée of Pic de Fon on the western side of the mountain in Macenta. The eastern side is mostly deforested but they said that chimpanzees may occasionally cross to the side of the mountain in Beyla. Hunters also report that chimpanzees may live in the extreme north of the Préfecture near the Préfecture of Kankan in the Sous-Préfecture of Boula. We had visited this area in Kankan and hunters had reported chimpanzees towards Beyla so it is possible that chimpanzees are found at the border between these two Préfectures, but we were not able to confirm this.

In Kankan Préfecture, chimpanzees were reported by hunters to exist Kariandougou in the Sous-Préfecture of Sabadou Baranama but we saw no sign of their presence. They were not present at Moribaya, Tintioulen or Boula Sous-Préfectures. If chimpanzees do exist in Kankan, it is in very low numbers.

In Coyah, chimpanzees were reported to be present in the Sous-Préfecture of Kolla Khouré near a village called Kouria.The hunters said that it was extremely rare that they ever saw a chimpanzee although they do exist. We were not able to confirm their presence here. Chimpanzees presence was confirmed in a total of 71 sites.**Figure 28** and **Table 7** show all areas where chimpanzee presence was confirmed.

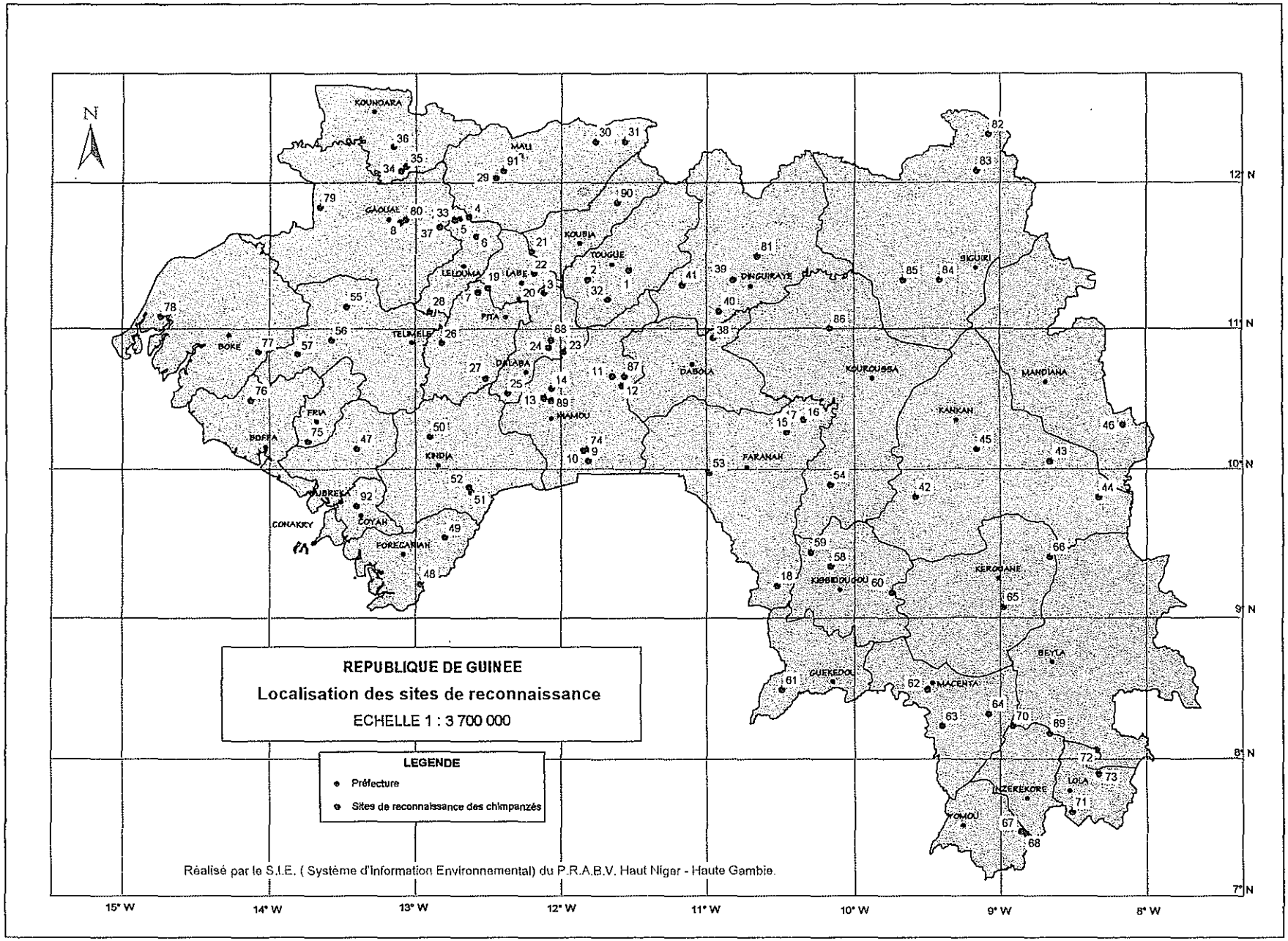


Figure 27. Map showing sites where reconnaissance surveys took place

Table 6. Sites where reconnaissance surveys took place

No.: Number of the site visited corresponding to map reference
DATE: Date site was visited
VILLAGE: Village closest to area visited
SOUS-PRÉFECTURE
PREFECTURE
GPS POINT
CHIMPS: According to the hunter, are the chimpanzee population is Absent, Rare, Common or Abundant?
DYNAMICS: According to the hunter, is the chimpanzee population Stable, Increasing or Decreasing?
HUNTED: Are chimpanzees hunted in this area?
WHY? Why chimpanzees are hunted, eg. for food?
BABIES: Are babies captured for sale in this area?
PRICE (FG): How much does a hunter sell a baby for in this area?
MIGRATIONS? Do the chimpanzees migrate in this area?
SEASONAL: Are the chimpanzee's movements seasonal in this area?
SOURCE: Where is the water source where chimpanzees drink?
If chimpanzees crop raid, what foods do they eat?.....
Oranges
Mangoes
Bananas
Millet
Maize
Papaya
Palm trees
Pineapple
Sugar Cane
Tea Flowers
Manioc
Honey
Livestock
FEARED: Are chimpanzees feared in this area?
TOPOGRAPHY: Is the topography Flat, Undulating or Mountainous?
VEGETATION: The vegetation in this area in order of decreasing surface area where:
A=Agricultural land
B=Steppe
SA=Wooded savanna
FC=Open forest
FG=Gallery forest
FDS=Closed dry forest
FDH=Closed humid forest
POPULATION: Human population estimated to be High, Medium or Low
AGRICULTURE: Agriculture activities in this area estimated to be of high, medium or of low importance
HUNTING: Hunting activities in this area estimated to be of high, medium or of low importance
FISHING: Fishing activities in this area estimated to be of high, medium or of low importance
PASTORAL: Pastoral activities in this area estimated to be of high, medium or of low importantce

Table 6. Sites visited for reconnaissance surveys in Guinea

No.	DATE	VILLAGE	SOUS-PREFECTURE	PREFECTURE	GPS POINT	Chimps	Dynamics	Migrations?	Seasonal	Source	Oranges	Mangos	Bananas	Millet	Maize	Papaya	Palm trees	Pineapple	Sugar Cane	Tea Flowers	Manioc	Maize	Honey	Livestock
1	17/1/96	Kegna Oula	Kollé	Tougué	11°24'N 11°33'W	Common	Increasing	Resident	Yes	River Tagawel and Lopé	x													
2	19/1/96	Fogo	Fatako	Tougué	11°20'N 11°50'W	Common		Resident	No															
3	20/1/96	Noussi	Noussi	Labé	11°15'N 12°08'W	Common	Decreasing	Resident	No		x	x												
4	26/1/96	Tiankoye	Linsan	Lelouma	11°46'N 12°39'W	Common		Resident																
5	27/1/96	Gueme	Linsan	Lelouma	11°45'N 12°43'W	Common																		
6	28/1/96	Fello Sita	Linsan	Lelouma	11°38'N 12°36'W	Common																		
7	3/2/96	Djollo Fello	Timbi Madina	Pita	11°15'N 12°35'W	Absent																		
8	7/2/96	Fello Digue	Konsitel	Gaoual	11°44'N 13°07'W	Abundant	Increasing	Resident	No	River Koniwol														
9	16/2/96	Bannekota	Ouré Kaba	Mamou	10°05'N 11°50'W	Common																		
10	18/2/96	Fodea	Ouré Kaba	Mamou	10°09'N 11°52'W	Common																		
11	20/2/96	Bagata	Saramoussaya	Mamou	10°40'N 11°40'W	Abundant		Resident	Yes														x	
12	22/2/96	Simbakounia	Saramoussaya	Mamou	10°36'N 11°36'W	Rare	Decreasing																x	
13	24/2/96	Fetoual	Tolo	Mamou	10°31'N 12°08'W	Common																		
14	25/2/96	Windeyetti	Tolo	Mamou	10°35'N 12°05'W	Common																		
15	26/3/96		Bendou	Faranah	10°22'N 10°21'W	Common																		
16	28/3/96	Sérékoro	Bendou	Faranah	10°17'N 10°28'W	Rare	Increasing	Temporary	Yes	Rivers Niger, Mafou and other streams	x	x	x											
17	28/3/96	Sidakoro	Bendou	Faranah	10°05'N 10°10'W	Absent																		
18	30/3/96	Kobikoro	Kobikoro	Faranah	10°20'N 10°30'W	Rare	Decreasing	Temporary		Many streams all over														
19	6/4/96	Chute de Sala	Diari	Labé	11°17'N 12°31'W	Abundant	Stable	Resident	Yes		x													
20	8/4/96	Roumirgo	Daralabé	Labé	11°12'N 12°18'W	Abundant	Increasing	Resident	No	Many streams all over														
21	9/4/96	Donghi	Dalen	Labé	11°32'N 12°13'W	Abundant	Decreasing	Resident	No	Many streams all over	x												x	
22	9/4/96	Fello Horesére	Tountouroun	Labé	11°23'N 12°12'W	Common		Resident																
23	12/4/96	Kourou	Gongôré	Mamou	10°50'N 11°60'W	Abundant	Increasing	Resident	No	River Silati	x													
24	13/4/96	Fougoumba	Ditin	Dalaba	10°52'N 12°06'W	Abundant	Increasing	Temporary	Yes		x	x												x
25	16/4/96	Koba	Koba	Dalaba	10°33'N 12°23'W	Abundant	Increasing	Resident	No		x													x
26	24/4/96	Soindé	Ley Miro	Pita	10°54'N 12°50'W	Abundant	Increasing	Resident	No															
27	26/4/96	Dikourou	Sangaréa	Pita	10°36'N 12°26'W	Abundant	Increasing	Resident	No	River Sompo														
28	30/4/96	Horé Fello	Bourouwal	Télémélé	11°07'N 12°55'W	Common	Decreasing	Temporary	Yes	Many streams all over														
29	24/5/96	Nyongongie	Madina Wara	Mali	12°02'N 12°28'W	Abundant	Increasing	Resident	No	River Kaoma			x											
30	27/5/96	Bagata	Balaki	Mali	12°17'N 11°47'W	Common	Increasin	Resident	No															
31	28/5/96	Dioulabaja	Balaki	Mali	12°17'N 11°35'W	Common	Increasing	Temporary	Yes	Many streams all over	x	x												
32	2/6/96	Kondiéya	Kansangl	Tougué	11°12'N 11°42'W	Common																		
33	10/9/96	Sinnthiourou	Linsan	Lelouma	11°45'N 12°45'W	Abundant	Increasing	Resident	No	River Tougé														
34	13/9/96	NDama Hindé	Guingan	Koundara	12°05'N 13°07'W	Common	Increasing	Resident	No	Many streams all over			x											
35	13/9/96	Fello Kolon	Guingan	Koundara	12°07'N 13°05'W	Common	Increasing	Resident	No	Many streams all over			x											
36	14/9/96	Ndama	Guingan	Koundara	12°15'N 13°10'W	Common	Increasing	Resident	No	Many streams all over			x											
37	16/9/96	Sébétéré	Kounsitel	Gaoual	11°42'N 12°51'W	Abundant	Increasing	Resident	No	River Tenkèta	x	x												
38	27/9/96	Kankirabou	Bissikrima	Dabola	10°56'N 10°58'W	Abundant	Increasing	Resident	No															
39	30/9/96	Lapikou	Lansanaya	Dinguiraye	11°30'N 10°40'W	Rare	Decreasing	Temporary	Yes	River Kousili														
40	2/10/96	Fadia	Selouma	Dinguiraye	11°07'N 10°56W	Abundant	Stable	Resident	No	Lopé marsh													x	
41	4/10/96	Santanfara	Kalinko	Dinguiraye	11°18'N 11°11'W	Rare		Resident	No	River Cherno Pata													x	
42	17/10/96	Yiradou	Moribaya	Kankan	9°50'N 9°35'W	Absent																		
43	19/10/96	Sansando	Sabadou Baranama	Kankan	10°05'N 8°40'W	Absent																		
44	21/10/96	Kodiana	Boula	Kankan	9°50'N 8°20'W	Absent																		
45	23/10/96	Sana	Tintiolen	Kankan	10°10'N 9°10'W	Absent																		
46	26/10/96	Ouyari	Saladou	Mandiana	10°20'N 8°10'W	Absent																		
47	15/11/96	Kambo	Faléssadé	Dubreka	10°10'N 13°25'W	Common	Increasing	Resident	No	River Tonokô				x										
48	19/11/96	Wamifily	Farmoréya	Forecariah	9°04'N 12°59'W	Common	Decreasing	Resident	No	River Pepinieri and Fossilsouré				x										

Table 6. Sites visited for reconnaissance surveys in Guinea cont...

o.	DATE	VILLAGE	SOUS-PREFECTURE	PREFECTURE	GPS POINT	Chimps	Dynamics	Migrations?	Seasonal	Source	Oranges	Mangos	Bananas	Millet	Maize	Papaya	Palm trees	Pineapple	Sugar Cane	Tea Flowers	Manioc	Maize	Honey	Livestock
9	21/11/96	Tabekouré	Sikhourou	Forecariah	9°33'N 12°49'W	Common	Decreasing	Resident	Yes	River Demoukourou	x			x										
0	23/11/96	Hamadia	Bangouya	Kindia	10°15'N 12°55'W	Rare	Decreasing	Temporary	No	River Kébé				x										
1	24/11/96	Mamou	Madina Woula	Kindia	9°52'N 12°38'W	Common	Stable	Resident	No	River Tiguiné and Santa	x			x		x								
2	24/11/96	Gbélima	Madina Woula	Kindia	9°54'N 12°39'W	Common	Stable	Resident	No	River Tiguiné and Santa	x			x		x								
3	8/12/96	Yatia	Heremakono	Faranah	10°00'N 11°00'W	Rare	Decreasing	Temporary	Yes		x	x											x	
4	13/12/96	Nongoya	Benfélé	Kouroussa	9°55'N 10°10'W	Common	Decreasing	Temporary	Yes	River Farakonin													x	
5	4/1/97	Dounkirè	Missira	Télémélé	11°09'N 13°29'W	Common	Increasing	Resident	No	River Bendé Baré	x	x											x	
5	6/1/97	Daramangaki	Daramagnaki	Télémélé	10°49'N 13°49'W	Rare	Decreasing	Resident	No	Rivers Kinibama	x									x				
7	7/1/97	Tyimmouri	Konsotami	Télémélé	10°55'N 13°35'W	Common	Decreasing	Resident	No	River Tinguilinta	x		x				x							
8	1/2/97	Bagbé	Yombiro	Kissidougou	9°21'N 10°10'W	Absent																		
9	2/2/97	Sanankoro	Sangardo	Kissidougou	9°27'N 10°18'W	Rare	Increasing	Resident	Yes	River Kingègbè														
0	6/2/97	Bandiraya	Bandama	Kissidougou	9°10'N 9°40'W	Absent																		
1	8/2/97	Kessedou	Wondé Kenema	Guékédou	8°30'N 10°30'W	Rare	Decreasing	Temporary	Yes	River Pétiangui		x												
2	9/2/97	Macenta Centre	Macenta Centre	Macenta	8°30'N 9°30'W	Absent																		
3	11/2/97	Soundedou	Seredou	Macenta	8°15'N 9°24'W	Common	Decreasing	Resident	No	Many streams all over														
4	12/2/97	Yiré	Sérédou	Macenta	8°20'N 9°05'W	Common	Decreasing	Resident	No	Many streams all over														
5	14/2/97	Farafina	Konsonkoro	Kerouané	9°04'N 8°59'W	Rare	Decreasing	Resident	No															
5	15/2/97	Linko	Linko	Kerouané	9°25'N 8°40'W	Absent																		
7	7/3/97	Yossono	Bounama	Nzérékoré	7°31'N 8°52'W	Common	Decreasing	Temporary	No	Stream Kiéton			x					x	x			x		
8	8/3/97	Forêt Classe Diéké	Diéké	Yomou	7°30'N 8°50'W	Common	Decreasing	Temporary	No	Stream Kiéton			x					x	x			x		
9	10/3/97	Alaminata	Goucké	Nzérékoré	8°12'N 8°40'W	Rare	Decreasing	Temporary	No															
0	12/3/97	Pabou	Koropara	Nzérékoré	8°15'N 8°55'W	Absent																		
1	14/3/97	Bossou	Bossou	Lola	7°39'N 8°31'W	Common	Stable	Resident			x	x												
2	16/3/97	Gambadougou	Fambadou	Lola	8°05'N 8°21'W	Rare	Decreasing	Resident	No	River Quali													x	
3	17/3/97	Kasieta	Kokota	Lola	7°55'N 8°20'W	Absent																		
4	20/3/97		Ouré Kaba	Mamou	10°10'N 11°50'W	Abundant	Decreasing	Resident	No															
5	3/4/97	Barakhaya	Tormelin	Fria	10°13'N 13°45'W	Rare	Decreasing	Temporary	No	River Sangé		x												
5	5/4/97	Tagbé	Kolia	Boffa	10°30'N 14°08'W	Common	Increasing	Resident	No	River Gbesseng	x	x												
7	12/4/97	Sirla	Tanene	Boké	10°50'N 14°05'W	Abundant	Increasing	Resident	No	River Tagbon Tafari	x	x	x									x		
8	15/4/97	Wassadou	Sansalé	Boké	11°05'N 14°45'W	Common	Increasing	Resident	No	River Wassadou	x	x				x					x			
9	19/4/97	Moyerai	Koumbia	Gaoual	11°50'N 13°40'W	Abundant	Increasing	Resident	No	River Diwé	x	x										x		
0	21/4/97		Konsitel	Gaoual	11°45'N 13°05'W	Abundant	Stable	Resident																
1	26/4/97	Bilikiti	Diatifere	Dinguiraye	11°20'N 10°50'W	Rare	Decreasing	Resident	No	River Bilikitiwol													x	
2	29/4/97	Kiri	Niagassola	Siguiri	12°20'N 9°05'W	Absent																		
3	30/4/97	Fidako	Niagassola	Siguiri	12°05'N 9°10'W	Common	Decreasing	Resident	Yes	River Sensen														
4	1/5/97	Ouran	Siguiri	Siguiri	11°20'N 9°25'W	Absent																		
5	2/5/97	Madenta	Siruiri	Siguiri	11°20'N 9°40'W	Absent																		
5	2/5/97	Mountountoun	Sanguiena	Kouroussa	11°00'N 10°10'W	Absent																		
7	3/5/97	Koulako	Saramoussaya	Mamou	10°40'N 11°35'W	Abundant	Increasing	Resident	No	River Sou	x			x									x	
8	8/5/97	Fougoumba	Ditin	Delaba	10°55'N 12°05'W	Rare	Increasing	Temporary	Yes	River Siragouré														x
9	9/5/97	Kouramoké	Tolo	Mamou	12°30'N 12°05'W	Rare	Decreasing	Temporary																
0	14/5/97	Ley Fello Madina	Ghada Woundou	Koubia	11°52'N 11°38'W	Abundant	Increasing	Resident	Yes	River Lafa	x	x	x											
1	16/5/97	Hamdalaye	Lebekeri	Mali	12°05'N 12°25'W	Common	Increasing	Temporary	Yes	River Koumba and Lopoi														
2	9/6/97	Kouria	Kolla Khouré	Coyah	9°46'N 13°25'W	Absent																		

Table 6. Sites visited for reconnaissance surveys in Guinea

No.	Feared	Hunted	Why?	Babies	Destination	Price (fg)	Topography	Vegetation	Population	Agriculture	Hunting	Fishing	Pastoral
1	No	No		No			Flat	A, B, SA, FG	Low	High	Low	Low	Medium
2							Mountainous	A, FC, B	High	High	Medium	Low	Medium
3	No	Yes		No			Mountainous	A, FDS, FC, SA	High	High	Medium	Low	High
4		No					Mountainous	A, FC, SA	Medium	High	Medium	Low	High
5							Mountainous	A, FC, SA	Medium	High	Medium	Low	High
6							Mountainous	A, B, FC	High	High	High	Low	Medium
7							Mountainous	A, B, SA, FC	High	High	High	Low	Medium
8	No	No		No			Undulating	FC, B, A	Low	Medium	Medium	Low	Medium
9		Yes	Meat exported to Sierra Leone and Sell infants	Yes	Villages		Undulating	A, FC, SA, B	Low	High	High	Low	Medium
10							Undulating	A, FC, SA, B	Low	High	High	Low	Medium
11	No	No		No			Mountainous	A, FDS, FC, B	Medium	High	Low	Low	Medium
12	No	Yes	Pest for honey	No			Undulating	A, FDS, FC, B	High	High	Low	Low	Medium
13	No	No		No			Undulating	FDS, FC	Low	Low	Low	Low	High
14	No	No		No			Undulating	FDS, FC, A	Medium	Medium	Low	Low	Medium
15							Flat	FC, SA, B	Low	Low	Low	Low	Low
16	Yes	Yes	Meat Eaten and Medicinal Use	No			Flat	FC, A	Low	Medium	High	Medium	Low
17							Flat	A, FC, SA,	Medium	High	High	Medium	Low
18	No	Yes	Meat eaten	No			Mountainous	A, FC, A	High	Medium	High	Low	Medium
19	No	No		No			Ravines	FC, GF	Low	Low	Low	Low	Low
20	No	No		No			Mountainous	A, SA	Medium	High	Medium	Low	Medium
21	No	No		No			Undulating	A, FG, FDS, FC	Medium	High	Low	Low	High
22	No	No		No			Mountainous	FC, SA, A	Medium	Medium	Low	Low	Medium
23	No	No		No			Mountainous	FDS, A	High	Medium	Medium	Medium	Medium
24	Yes	No		No			Mountainous	FDS, B	Low	Low	High	Low	Medium
25	Yes	No		No			Mountainous	A, FG, FDS, FC	High	High	Low	Low	High
26		No					Undulating	A	High	High	Medium	Low	Medium
27	Yes	Yes		No		40,000-50,000	Undulating	A	Low	High	High	Low	High
28	Yes	No		No			Undulating	A, FDS	Medium	High	Low	Low	High
29	Yes	No		No			Mountainous	SA, A, FC	Medium	Medium	Low	Low	High
30	No	No		No			Flat	FC,B,GF	Low	Low	High	Low	Low
31		Yes	Sell infants	Yes			Flat	FC,B,GF	Low	Low	High	Low	Low
32	No	No		No			Undulating	A, FDS, B	Medium	High	Medium	Low	High
33	No	No		No			Mountainous	A,FC	Medium	Medium	Medium	Low	Medium
34		Yes	Sell infants	Yes	The Gambia	40,000	Flat	FDS,SA,B	Low	Low	Low	Low	High
35		Yes	Sell infants	Yes	The Gambia	40,000	Flat	FDS,SA,B	Low	Low	Low	Low	High
36		Yes	Sell infants	Yes	The Gambia	40,000	Flat	FDS,SA,B	Low	Low	Low	Low	High
37	No	Yes	Sell infants	Yes	Conakry	6,000-8,000	Mountainous	A	High	High	High	Low	Low
38	No	Yes		No			Mountainous	FDS	Medium	Low	Low	Low	Low
39	NO	Yes	Meat sold to trucks from Guinée Forestière and PEts	Yes	Dinguiraye		Undulating	A, SA, GF, FC	Low	High	High	Medium	High
40		Yes	Sell infants	Yes	White people working on roads		Mountainous	FDS	Low	Low	Low	Low	Medium
41	No	Yes	Culled because pests and Sell infants	Yes	Dinguiraye		Mountainous	A, FDS	High	High	Medium	Low	Medium
42							Flat	A, SA, FC	Low	High	Medium	Low	Low
43	Yes	Yes	Sell infants	No		10,000	Flat	A, S	Medium	High	High	Low	Low
44							Flat	A, S	Medium	High	High	Low	Low
45							Flat	A, S	Medium	High	High	Low	Low
46							Flat	A, SA, FC	Medium	High	High	Low	Low
47	No	No		No			Mountainous	A, SA	Low	High	Low	Medium	Low
48	No	Yes	Meat sold to gendarmes and Sell infants	Yes			Undulating	FDS	Low	Low	High	Low	Low

Table 6. Sites visited for reconnaissance surveys in Guinea cont.../

No.	Feared	Hunted	Why?	Babies	Destination	Price (fg)	Topography	Vegetation	Population	Agriculture	Hunting	Fishing	Pastoral
49	No	No		No	Sierra Leone		Mountainous	A,FDS	High	High	Medium	Low	Low
50	No	Yes	Meat eaten and Sell infants	Yes	Institue Pasteur before		Mountainous	A	High	High	Medium	Low	High
51	No	No		No			Mountainous	FDS,GF, A	Medium	Medium	Medium	Medium	Low
52	No	No		No			Mountainous	FDS,GF,A	Medium	Medium	Medium	Medium	Low
53	Yes	Yes	Meat eaten and Sell infants	Yes			Flat	A, SA, FC	Medium	High	High	Low	Medium
54	No	Yes	Meat eaten	No			Flat	A, FC	Medium	High	High	Low	Medium
55	No	Yes	Killed because pests and Sell infants	Yes	Trucks		Undulating	B, SA	Medium	Low	Medium	Low	High
56	No	No		No			Undulating	B, GF, A, SA	Mediu,	Medium	Low	Low	Medium
57	Yes	Yes	Sell infants	Yes	Saugaredi	Variable	Undulating	A, SA	High	High	Medium	Low	Medium
58							Mountainous	A, FDS	Medium	High	High	Low	High
59	Yes	No		No		50,000	Flat	SA, A	Medium	Medium	High	Low	Low
60							Undulating	SA, FG, FC, A	Medium	Medium	Medium	Low	Medium
61	Yes	Yes	Meat eaten and Sell infants	Yes			Mountainous	A, FDH, FG	High	High	High	Low	Medium
62							Undulating	A, SA	High	High	Medium	Low	Low
63	No	No		No			Mountainous	FDH	Low	Low	High	Low	Low
64	No	No		No			Mountainous	FDH	Low	Low	High	Low	Low
65		No		No			Undulating	A,FDH	Low	High	High	Low	Medium
66							Flate	A,SA, FC	Low	High	High	Low	Low
67	No	Yes	Meat eaten, killed because pests and Sell infants	Yes	Authorities in Nzérékoré		Mountainous	FDH	Medium	Low	High	Low	Low
68	No	Yes	Meat eaten, killed because pests and Sell infants	Yes	Authorities in Nzérékoré		Mountainous	FDH	Medium	Low	High	Low	Low
69	No	Yes	Meat eaten and Sell infants	Yes			Mountainous	FDH	Medium	Low	High	Low	Low
70							Undulating	A, FG	Medium	High	High	Low	Low
71	No	No		NO			Mountainous	FDH, A	High	Medium	Low	Low	Low
72	No	Yes	Sell infants	Yes			Flat	A,FDH	Medium	High	High	Low	Low
73							Flat	A, FC	Medium	High	High	Low	Low
74	Yes	Yes	Sell infants	Yes			Undulating	A, SA, FC	Medium	High	Medium	Low	High
75	No	Yes	Sell infants	Yes	Gendarmes		Mountainous	A,GF	High	High	High	Low	Medium
76	Yes	Yes	Meat eaten or exported and Sell infants	Yes	White people		Mountainous	A, SA	Medium	High	Medium	Low	Low
77	No	No		No			Undulating	A, B	Low	High	Medium	Low	Low
78	Yes	Yes	Sell infants	Yes	White people in Kamsar	100,000-300,000	Undulating	A, B,SA	Low	High	Medium	Low	Low
79	No	Yes	Sell infants	Yes	White people		Flat	FC, B, A	Low	Medium	Medium	Low	Low
80	No	No		No			Undulating	FC, FDS, B,A	Low	Medium	Low	Low	Medium
81	Yes	Yes	Killed because pests and Sell infants	Yes	Dinguiraye		Undulating	B, A, FC	Medium	Medium	Medium	Low	Medium
82							Mountainous	A, SA, FC	Medium	High	Medium	Low	Medium
83	Yes	Yes	Meat eaten	No			Flat	A, B	Medium	High	High	Low	High
84							Flat	A, FG	Medium	High	High	Low	High
85							Flat	A, FG	Medium	High	High	Low	High
86							Flat	A, FG	Medium	High	High	Low	High
87	No	Yes	Sell infants	Yes	Conakry		Mountaineous	A, B, FC		High	Medium	Low	Medium
88		Yes	Sell infants	Yes			Flat	A, B	Medium	High	Medium	Low	High
89	No	No		No			Undulating	A, FC,FG	High	High	Medium	Low	High
90	No	Yes	Sell infants	Yes	Koubia	13,000	Undulating	FC,SA,A,GF	Medium	Medium	Medium	Medium	Medium
91	Yes	Yes	Sell infants	Yes	Mali	10,000	Mountainous	SA, A	Low	Medium	High	Low	Low
92							Undulating	A, SA	High	High	Medium	Low	Medium

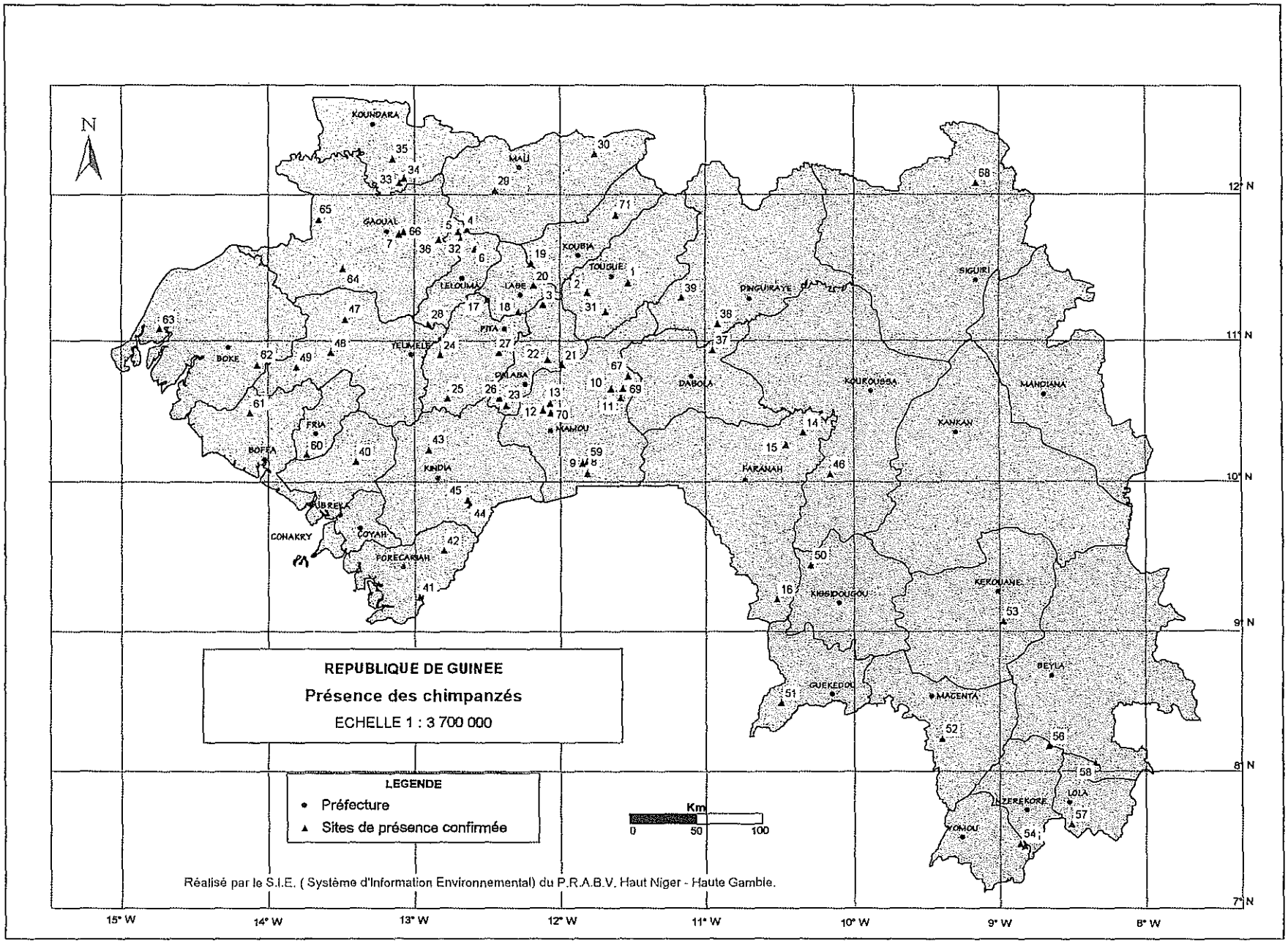


Figure 28. Map showing all areas where chimpanzee presence was confirmed

Table 7. Location of where chimpanzee presence was confirmed by:

O Observation
A Audition
N Nests
R Feeding remains
T Tracks
F Faeces

NO.	DATE	VILLAGE	SOUS-PREFECTURE	PREFECTURE	EVIDENCE	GPS
1	17/1/96	Kegna Oula	Kollé	Tougué	A,N	11°24'N 11°33'W
2	19/1/96	Fogo	Fatako	Tougué	A,N,R,T,F	11°20'N 11°50'W
3	20/1/96	Noussi	Noussi	Labé	O,A,N,R,T,F	11°15'N 12°08'W
4	26/1/96	Tiankoye	Linsan	Lelouma	O,A,N,R,T,F	11°46'N 12°39'W
5	27/1/96	Gueme	Linsan	Lelouma	O,A,N,R,T,F	11°45'N 12°43'W
6	28/1/96	Fello Sita	Linsan	Lelouma	N	11°38'N 12°36'W
7	7/2/96	Fello Digue	Konsitel	Gaoual	A,N	11°44'N 13°07'W
8	16/2/96	Bannekota	Ouré Kaba	Mamou	O,A,N	10°05'N 11°50'W
9	18/2/96	Fodea	Ouré Kaba	Mamou	N	10°09'N 11°52'W
10	20/2/96	Bagata	Saramoussaya	Mamou	O,A,N,R,T,F	10°40'N 11°40'W
11	22/2/96	Simbakonian	Saramoussaya	Mamou	N	10°36'N 11°36'W
12	24/2/96	Fetoual	Tolo	Mamou	N	10°31'N 12°08'W
13	25/2/96	Windeyetti	Tolo	Mamou	O,A,N	10°34'N 12°05'W
14	27/3/96	Sérékoro	Bendou	Faranah	N	10°22'N 10°21'W
15	27/3/96	Sérékoro	Bendou	Faranah	N	10°17'N 10°28'W
16	30/3/96	Kobikoro	Kobikoro	Faranah	N	9°13'N 10°32'W
17	6/4/96	Chute de Sala	Diari	Labé	O,A,N,R,T,F	11°17'N 12°31'W
18	8/4/96	Roumirgo	Daralabé	Labé	N	11°12'N 12°18'W
19	9/4/96	Donghi	Dalen	Labé	O,A,N,R,T,F	11°32'N 12°13'W
20	9/4/96	Fello Horesére	Tountouroun	Labé	N	11°23'N 12°12'W
21	12/4/96	Kourou	Gongóré	Mamou	O,A,N,R,T,F	10°50'N 11°60'W
22	13/4/96	Fougoumba	Ditin	Dalaba	O,A,N,R,T,F	10°52'N 12°06'W
23	16/4/96	Koba	Koba	Dalaba	O,A,N,R,T,F	10°33'N 12°23'W
24	24/4/96	Soindé	Ley Miro	Pita	N	10°54'N 12°50'W
25	25/4/96	Mt.Demoukolina	Sangaréa	Pita	N	10°36'N 12°47'W
26	26/4/96	Dikourou	Sangaréa	Pita	O,A,N,R,T,F	10°36'N 12°26'W
27	27/4/96	Massi	Massi	Pita	O,A,N,R,T,F	10°55'N 12°26'W
28	30/4/96	Horé Fello	Bourouwal	Télémélé	O,A,N,R,T,F	11°07'N 12°55'W
29	24/5/96	Nyongongie	Madina Wara	Mali	O,A,N,R,T,F	12°02'N 12°28'W
30	27/5/96	Bagata	Balaki	Mali	N,R,T,F	12°17'N 11°47'W
31	2/6/96	Kondiéya	Kansangi	Tougué	O,A,N,R,T,F	11°12'N 11°42'W
32	10/9/96	Sinnthiourou	Linsan	Lelouma	A,N,R,T	11°42'N 12°42'W
33	13/9/96	Fello Kolon	Guingan	Koundara	N,R,T	12°07'N 13°05'W
34	13/9/96	NDama Hindé	Guingan	Koundara	N,R,T	12°05'N 13°07'W
35	14/9/96	Ndama	Guingan	Koundara	T	12°15'N 13°10'W
36	16/9/96	Sébétéré	Kounsitel	Gaoual	N,R,T	11°42'N 12°51'W
37	27/9/96	Kankirabou	Bissikrima	Dabola	A,N,R,T,F	10°56'N 10°58'W
38	2/10/96	Fadia	Selouma	Dinguiraye	O,A,N,R,T,F	11°07'N 10°56W
39	4/10/96	Santanfara	Kalinko	Dinguiraye	N,R,T,F	11°18'N 11°11'W
40	15/11/96	Kambo	Faléssadé	Dubreka	N	10°10'N 13°25'W
41	19/11/96	Wamifily	Farmoréya	Forecariah	N,R	9°04'N 12°59'W
42	21/11/96	Tabekouré	Sikhourou	Forecariah	A,N	9°33'N 12°49'W
43	23/11/96	Hamadia	Bangouya	Kindia	N	10°15'N 12°55'W
44	24/11/96	Mamou	Madina Woula	Kindia	N,R,F	9°52'N 12°38'W
45	24/11/96	Gbélima	Madina Woula	Kindia	N	9°54'N 12°39'W
46	13/12/96	Nongoya	Benfélé	Kouroussa	N	10°05'N 10°10'W
47	4/1/97	Dounkirè	Missira	Télémélé	N,R	11°09'N 13°29'W
48	6/1/97	Daramangaki	Daramagnaki	Télémélé	A,N,R	10°55'N 13°35'W
49	8/1/97		Konsotami	Télémélé	N	10°49'N 13°49'W
50	2/2/97	Sanankoro	Sangardo	Kissidougou	N	9°27'N 10°18'W
51	8/2/97	Kessedou	Wondé Kenema	Guékédou	N	8°30'N 10°30'W
52	11/2/97	Soundedou	Seredou	Macenta	N	8°15'N 9°24'W
53	14/2/97	Farafina	Konsonkoro	Kerouané	N	9°04'N 8°59'W
54	7/3/97	Yossono	Bounama	Nzérékoré	N	7°31'N 8°52'W
55	8/3/97	Forêt Classe Diéké	Diéké	Yomou	O,A,N,R,F,T	7°30'N 8°50'W
56	10/3/97	Alaminata	Goucké	Nzérékoré	N	8°12'N 8°40'W
57	14/3/97	Bossou	Bossou	Lola	O,A,N,R,F,T	7°39'N 8°31'W
58	16/3/97	Gambadougou	Fambadou	Lola	A,N,R,T	8°05'N 8°21'W
59	20/3/97		Ouré Kaba	Mamou	N	10°10'N 11°50'W
60	3/4/97	Barakhaya	Tormelin	Fria	A,N,R	10°13'N 13°45'W
61	5/4/97	Tagbé	Kolia	Boffa	A,N,R	10°30'N 14°08'W
62	12/4/97	Siria	Tanene	Boké	N,R	10°50'N 14°05'W
63	15/4/97	Wassadou	Sansalé	Boké	N	11°05'N 14°45'W
64	17/4/97	Koumbia	Koumbia	Gaoual	R	11°30'N 13°30'W
65	19/4/97	Moyerai	Koumbia	Gaoual	N	11°50'N 13°40'W
66	21/4/97		Kounsitel	Gaoual	N	11°45'N 13°05'W
67	24/4/97	Koulako	Saramoussaya	Mamou	N	10°45'N 11°33'W
68	30/4/97	Fidako	Niagassola	Siguiri	N	12°05'N 9°10'W
69	3/5/97	Koulako	Saramoussaya	Mamou	N	10°40'N 11°35'W
70	9/5/97	Kouramoké	Tolo	Mamou	N	10°30'N 12°05'W
71	14/5/97	Lay Fello Madina	Gbada Woundou	Koubia	N	11°52'N 11°38'W

Ranging patterns of chimpanzees

Hunters reported chimpanzees to be "resident" in 48 sites and "temporary" in 17 sites visited. In 42 areas hunters said that chimpanzee movements were seasonal and in 17 areas, hunters reported that chimpanzee movements were not seasonal.

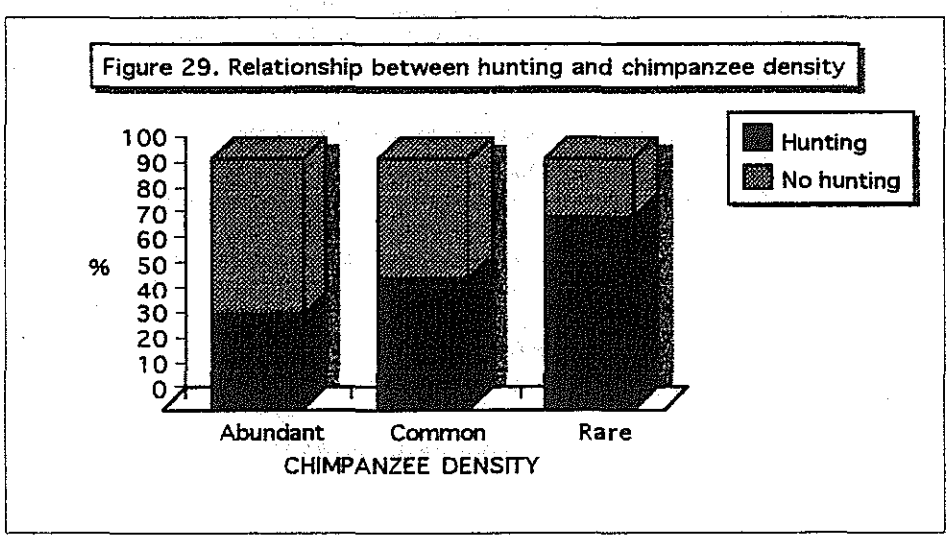
Attitudes of People towards Chimpanzees

Out of all hunters who answered the question (N=60) 72% feared and respected chimpanzees. Even when hunters did not fear chimpanzees, they said that people in the village, especially women and children feared chimpanzees. Following on from this question, when asked if chimpanzees had ever attacked someone, hunters often said that they had only heard of someone being attacked when they were trying to capture an infant chimpanzee or if they were hunting chimpanzees (n=10). The only three cases where chimpanzees were reported to have attacked when the chimpanzees were not being hunted were (1) when a chimpanzee climbed into an orange tree where a boy was sleeping and, surprised by the boy, bit his foot, (2) a young women found chimpanzees raiding crops in her field and when she tried to chase them away, they attacked her, and (3) a chimpanzee in Kounsitel that hid by the side of the road and attacked people who were carrying fruit.

Hunting of Chimpanzees

In 54% of areas visited chimpanzees were hunted. This is very similar to the results found in the questionnaires (52%). The reasons given for killing chimpanzees were that (1) they destroyed their crops such as oranges, mangoes, bananas, millet, maize, honey etc (n=6); (2) they were hunted for their meat for food (n=14); (3) they were hunted for their meat for exportation (n=6); (3) they were killed for medicinal purposes (n=1); and (4) they were hunted to capture their babies for sale (n=30).

Not surprisingly, in areas where hunting was present, chimpanzees were usually rare and in areas where hunting was absent, chimpanzee presence tended to be abundant (**Figure 29**).



Especially in the Préfectures bordering the Fouta Djallon and Haute Guinée, hunters spoke of people coming with trucks from Guinée Forestière and paying people to fill their trucks with meat, including chimps, monkeys, wart hogs and bush pigs (species not normally eaten by people in the Fouta Djallon). A hunter in Dinguiraye spoke of a truck that came every dry season from Guinée Forestière. They would give the hunters cartridges to hunt with and take as many as 8-10 chimps each dry season. They would put the bodies of the chimps in the truck and take them to either "cadres" in Dinguiraye Centre or back to Guinée Forestière. Although this practise is most common on the edge of the Fouta, hunters also reported similar stories in central Fouta Djallon (eg. Gaoual Préfecture) and Guinée Maritime (eg. Télémélé Préfecture). In another area in Dinguiraye, the hunter spoke of gendarmes who came to hunt their wildlife and he showed us the area where the gendarmes would smoke the meat before taking it away.

The way in which chimpanzees were reported to be used for medicinal purposes included (1) chimpanzee brains used to cure short sitedness (2) chimpanzee blood used to cure epilepsy.

The capturing and selling of infant chimpanzees

Out of those hunters who answered the question (n=68), 43% of hunters sometimes hunted mothers to capture their babies. The destination of the babies was given as the cities of Conakry, Nzérékoré, Dinguiraye, Koubia and Mali. They also mentioned the Sous-Préfectures of Kamsar (Boké), Sangaredi (Boké) and also the countries of the Gambia, Senegal and Sierra Leone. They mentioned that the chimpanzees were sold especially to white people and gendarmes and people working on the roads. The lowest price for a baby chimpanzee given was 6,000fg and the maximum was 300,000 fg.

Hunters described several techniques which they used to capture babies. Many said that they would shoot the mother, trying not to hit the baby. They would try to shoot the mother through the back. Many hunters spoke of drugging the mother by mixing tobacco in a pool of water with honey and *Parkia bigobosa* fruit. They said that the tobacco would drug the mother for 24 hours so that they could steal her baby. Other hunters reported variation on this in that they would mix tobacco in a sweet paste (eg. Dinguiraye), or in papaya fruit (eg. Koundara). Hunters also reported using dogs to chase the mother until she dropped the baby (eg. Télémélé) and also said that babies sometimes get left behind during culls and they would recuperate these for sale. It is normally thought that there is no possibility that infants under the age of three can be captured without either killing or seriously harming the mother (Teleki, 1989; Carter pers comm.) so it is not known whether the story told about drugging the mother in order to steal her baby is true.

Many hunters seemed naive of the laws protecting chimpanzees although some knew that it was illegal. One hunter in Koundara had a very organised system where he would secretly hide a baby chimp in his village in a cage that carpenters had made especially for this purpose. He had a "tutor" in the Gambia who would come from time to time and collect the baby chimpanzees. Another hunter in Boké spoke openly about knowing that it was illegal to capture chimpanzees but said that he would keep capturing them because he did not want to give up the money he got from selling them in Kamsar (200,000fg) which was enormous compared to what he could make any other way. He said that white people insisted that he had a permit for the baby and that this was the most difficult part.

During the census, questions were never asked specifically of the whereabouts of captive chimpanzees. Nevertheless, several captive chimpanzees were seen and stories of the existence of many others heard. The following is a list of chimpanzees in captivity in Guinée encountered

during the census. This list does not include the 27 orphaned chimpanzees presently under the responsibility of the PCC or those listed by Estel Ward (see Annual Report, 1996):

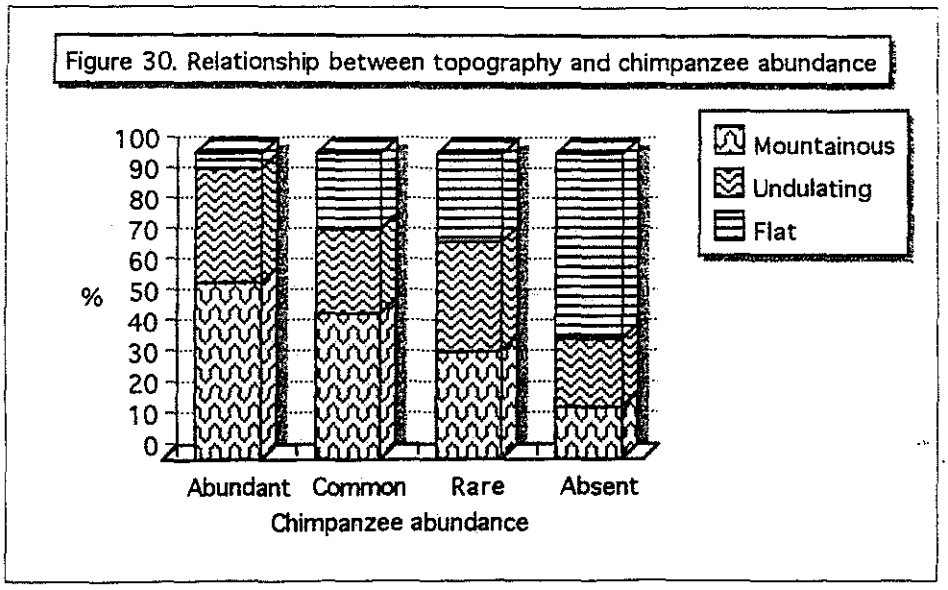
-Young boys in Ouré Kaba, Mamou seen with an infant chimpanzee in a card board box for sale.
-A juvenile female chimpanzee seen in Sangardo, Kissidougou tied to a tree at a health clinic
-An infant chimpanzee seen being sold on the street by a man in Kindia
-A man seen with an infant chimpanzee at a house in Mandiana
-A juvenile chimpanzee seen being kept by gendarmes at the blockade
-The chief of the guides in Boussou, Lola seen with an infant chimpanzee which was given to him
-An infant chimpanzee for sale in Sabadou-Baranama, Kankan
-Two infant chimpanzees for sale in Breteya in Oure Kaba in Mamou.
-An infant chimpanzee in a village in Dinguiraye Préfecture
-The chef de cantonnement in Kegneko in Mamou confiscated a baby chimpanzee from boys who had found it in a tree where they claimed it had been abandoned by its mother. It was given to gendarmes in Douné.
-A chimpanzee which grew up with the daughter of a shop owner in Mamou
-A chimpanzee which grew up with a Guinean employee of CBG
-A chimpanzee kept by an expatriate at FAO in Pita. The expert had to leave the country so sent the chimpanzee to Senegal to be with another chimpanzee in captivity there.
-A chimpanzee kept by an expatriate who worked for the DNFF. The expert had to leave the country and left it in the care of someone else in Kankan.

Combined with the 27 chimps in the care of the PCC, in total this represents a minimum of 41 chimpanzees known to be in captivity in Guinea. This is definitely a minimum as many hunters told stories of chimpanzees that they had captured in the past or killed.

It has been estimated that for every captive chimpanzee, at least 10 other chimpanzees have died. This includes the infant's mother who is usually shot in order to steal the baby, others that may also protect the baby, and those infant who accidentally get shot,or die during transport. This means that at least 400 chimpanzees have recently been taken from the wild in Guinea for the pet trade. Teleki (1989) suggests that even greater than 10 infants die for each infant in captivity and that the number may even be as great as 29. This illustrates that the pet trade is a significant drain on the wild chimpanzee population in Guinea.

Topography

The topography was also related to chimpanzee abundance in that areas where chimpanzees were abundant tended to be more mountainous and chimpanzees were absent in areas that were more flat (**Figure 30**). This is probably related to the fact that many mountainous areas are too steep to cultivate and therefore forest habitat still remains for the chimpanzees. Many of the areas visited where chimpanzees were present were isolated mountains covered in forest and surrounded in human inhabitation and agricultural land (eg. Fogo mountain in the Sous-Préfecture of Tougue Préfecture; Kourou mountain in the Sous-Préfecture of Gongôré in Mamou Préfecture, **Plate 11**; Fougoumba in the Sous-Préfecture of Ditinn in Dalaba Préfecture, **Plate 12**; Sous-Préfecture of Bossou in Lola Préfecture).



Human Population Density

Surprisingly, human population density seemed to have little to do with chimpanzee density and distribution (**Figure 31**). The Fouta Djallon is one of the most densely populated areas and yet it is here where chimpanzees are most widespread and in the highest density. Human population is lowest in Haute Guinée and yet it is here where chimpanzees are in some of the lowest densities.

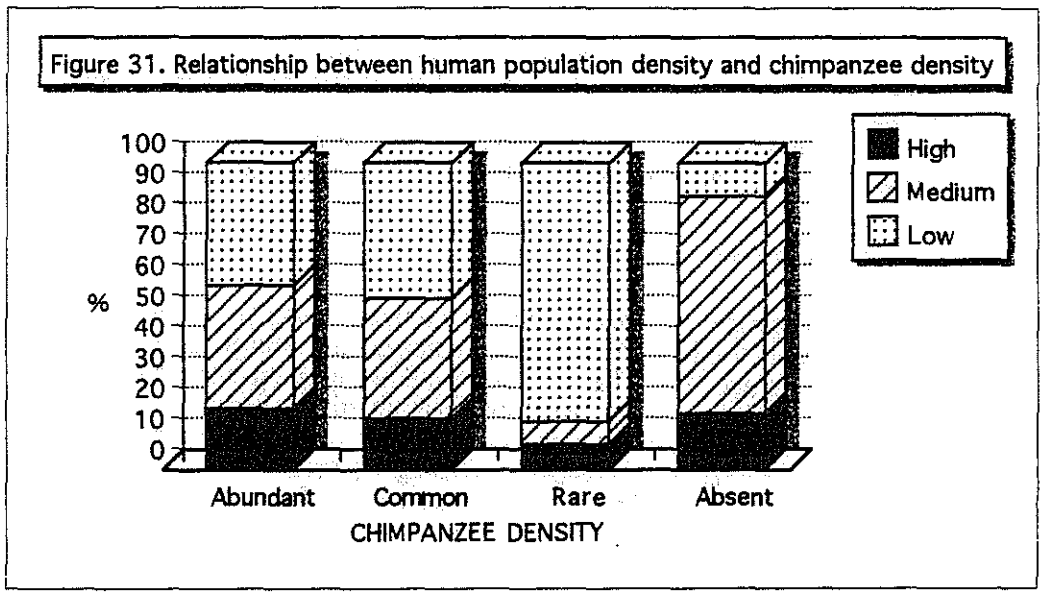
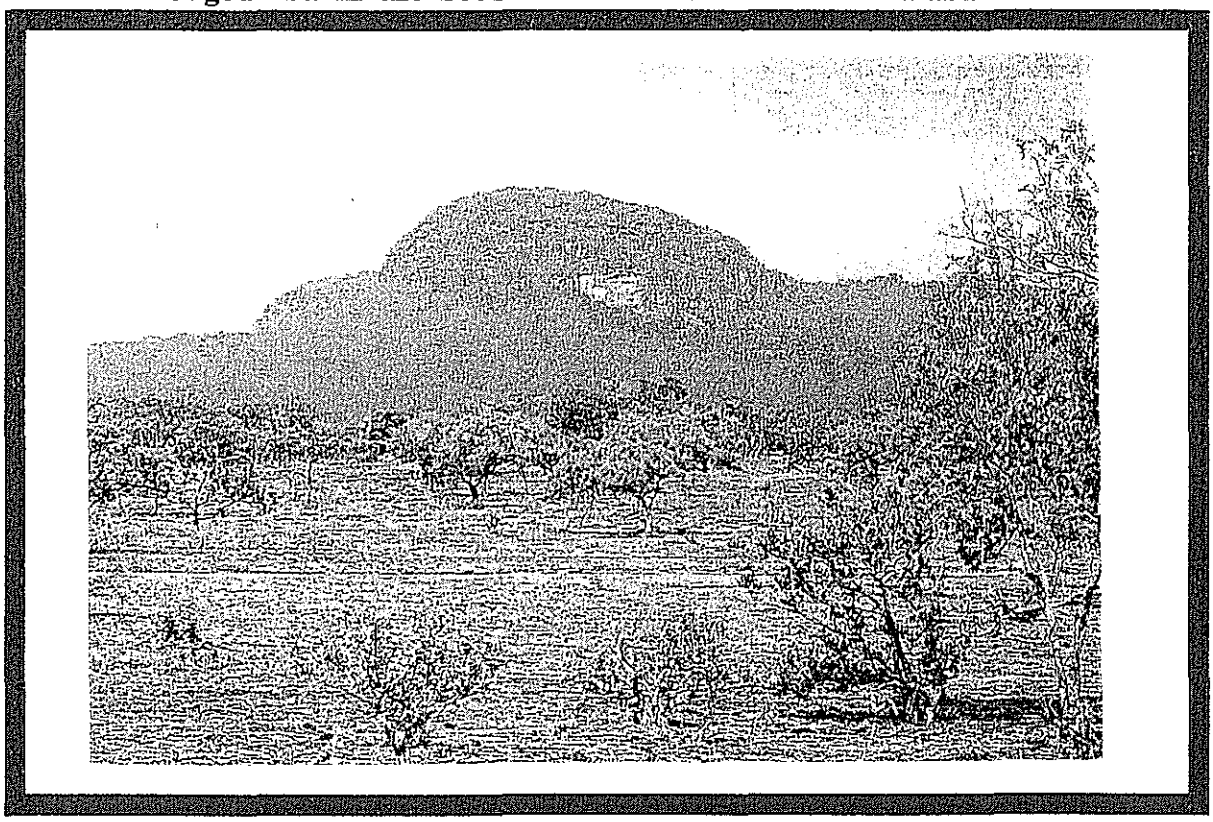


Plate 11. Kourou mountain in the Sous-Préfecture of Gongôré in Mamou

Plate 12. Fougoumba in the Sous-Préfecture of Ditinn in Dalaba Préfecture



Chimpanzee diet

In total 98 species of foods were confirmed through direct evidence (observation) and indirect evidence (fecal remains, food remains) for chimpanzees in Guinea. The most common food part was fruit but this may be a reflection on the fact that fruit remains and seeds in dung were more easily recognised than remains of leaf fragments (**Table 8**). Foods said to be eaten by chimpanzees were also recorded although it was not always possible to translate these into scientific names from local languages.

Nests

Combining the number of nests recorded during reconnaissance surveys (n=726), and the number of nests recorded during transect work (n=274), a total of 1,000 nests were recorded during both reconnaissance surveys and transects: 693 in the Fouta Djallon, 169 in Guinée Maritime, 81 in Guinée Forestière and 57 in Haute Guinée. Of those nests for which age was recorded, 221 were fresh, 226 recent, 340 old and 144 very old.

The most frequently used species of trees for nesting can be found in **Table 9**. The most frequently used tree did vary between regions. In the Fouta Djallon *Erythrophleum suaveolens* was the preferred species and made up 26% of the total nests. In Guinée Maritime 75 nests made in *Elaeis guineensis* were recorded (i.e.44% of all nests in this area) and many more were observed (**Plate 13**).

This is a behaviour that requires special mention here as nesting in palm trees is an extremely uncommon behaviour. Goodall (1968) reports a temporary fashion for building nests in palm trees for chimpanzees in Gombe, Tanzania. More recently, nesting in palm trees was observed by Gippoliti and Dell'Omo (1995) close to the border of Guinea in Guinea Bissau. He reported that "almost all the nests observed were located in the oil palm *Elaeis guineensis*, a behaviour never observed with similar intensity in any other chimpanzee population." He also noted that "Palms used as nests are severely damaged and this causes a decrease in the production of fruits. We suppose that this kind of nest is more durable than the typical nest and possibly can be reused by chimpanzees" (Gippoliti and Dell'Omo, 1995). During a biological survey of the Kounkounkan Massif, inn Fourecariah, Barnett *et al.*, (1996) observed chimpanzee nests in the crowns of oil palms between the villages of San San Kouri and Gabi. They said that "it is difficult to age such structures, and we could not tell if they were of recent origin."

De Bournonville (1967) travelled all through Guinée Maritime during his study and only reported ever finding one nest in a palm tree. This suggests that it is a fairly new behaviour that has developed over the past 30 years. Kortlandt (1992) however describes that during his earlier travels, he often saw nests in oil palms. He records that "many nests were noticed alongside the highways, particularly in oil palms whose crowns had been "pruned" by apes eating young shoots."

In truth, as shown by the results above, nesting in palm trees is an extremely common behaviour of chimpanzees throughout Guinea Maritime today. There is a high density of palm trees in this region, especially nearer to the coast. Even when other species of tree were available, however, in certain regions chimpanzees seemed to prefer nesting in palm trees. It is possible that this behaviour may be cultural, a hypothesis supported by McGrew (1985). Chimpanzees nesting in palm trees in Guinea is certainly a phenomenon that warrants further investigation.

Table 6. Foods eaten by chimpanzees in Guinea

						Parts eaten						Evidence				
Scientific name	Family	Pular	Malinké	Sousou	Forestiere	FRUIT	FLOWERS	SEEDS	LEAVES	BARK	PITH	EXUDATE	HUNTER	OBSERVATION	FAECES	REMAINS	WADGE
Adansonia digitata	Bombacaceae	Gbo				x							x			x	
Aframomum	Zingiberaceae					x					x		x			x	
Afzelia africana	Caesalpiniaceae	Lengé	Linke			x							x	x	x	x	
Andropogon sorghum	Graminaceae	Mille						x					x		x		
Annona senegalensis	Annonaceae	Doukoumé				x							x			x	
Oxytenantheraabyssinica	Poaceae	Kewal									x		x			x	
Boselliа spp.	Burseraceae	Anndukc				x										x	
Butyrospermum parkii	Sapotaceae	Kare				x	x						x			x	
Carapa procera	Meliaceae	Gilleng	Kobi			x							x			x	
Ceiba pentandra	Bombacaceae	Bantan					x						x			x	
Citrus sp.	Rutaceae	Leemune				x							x			x	
Cola cordifolia	Sterculiaceae	Goumbambé				x							x	x		x	
Combretum micranthum	Combretaceae	Kankalibu							x				x		x		
Detarium senegalense	Caesalpiniaceae	Booto				x							x			x	
Dialium guineensis	Caesapliniaceae	Meko	Kofina	Moke	Kpolokwe liwulu (G)	x							x			x	
Elaeis guineensis	Arecaceae	Tuguhi				x					x		x	x	x	x	
Erythrophleum guineensis	Caesalpiniaceae	Télé	Taali	Meli	Kili (G)	x		x					x		x	x	
Ficus ovata	Moraceae	Tchiéké				x							x		x	x	
Ficus polita	Moraceae	Hibé				x							x		x	x	x
Harunga madagascariensis	Hypericaceae	Sangala				x							x		x	x	
Landolphia heudelotii	Apocynaceae	Laré	Sagba			x							x		x	x	
Landolphia owariensis	Apocynaceae	Poré bété		Fore		x										x	
Landolphia senegalense	Apocynaceae	Poré				x							x		x	x	x
Landolphia senegalense	Apocynaceae	Poré								x			x			x	
Lannea acida	Anacardiaceae	Tchioukou				x							x			x	
Mangifera oleifera	Anacardiaceae	Mango	Mongoro	Mangè	Mang olonwulu (G)	x							x			x	
Moringa oleifera	Moringa oleifera	Niamfanca				x							x			x	
Nauclea latifolia	Rubiaceae	Ndoundouké				x							x			x	
Panda oleosa	Pandaceae							x					x			x	
Parinari excelsa	Chrysobalanaceae	Koura	Koura	Sougué		x							x	x	x	x	
Parkia biglobosa	Mimosaceae	Nété		Néré		x	x						x	x	x	x	x
Piliostigma thonningii	Caesalpinaceae	Barké				x									x		
Pseudospondias microcarpa	Anacardiaceae	N'Dolonga				x							x	x	x	x	
Pterocarpus erinaceus	Fabaceae	Bani					x		x	x			x			x	
Spondias mombin	Anacardiaceae	Tchalé		Lukhure	Moumbowulul (G)	x							x	x	x	x	
Syzygium guineense	Myrtaceae	Kadgo				x							x		x	x	x
Tamarindus indica	Caesalpiniaceae	Djabé				x		x					x			x	
Treculia africana	Moraceae		Gilinti			x							x		x	x	
Uapaca togoensis	Euphorbiaceae	Yalagé				x							x			x	
Uvaria chamae	Annonaceae	Boilé				x							x			x	x
Vitex cumeana	Verbenaceae	Bourné				x							x			x	
Zea mays	Gramineae				Bae (M), Kpai (G)			x					x		x		x
		Bouroubourа khori				x							x			x	
		Gousaou				x							x			x	x
		Laka				x							x			x	
		Lasa				x							x			x	
		Ninkon				x		x					x		x	x	
			Fartannayire			x							x			x	
				Wobé		x							x			x	

Table 6. Foods eaten by chimpanzees in Guinea/ cont.

						Parts eaten						Evidence			
Scientific name	Family	Pular	Malinké	Sousou	Forestiere	FRUIT	FLOWERS	SEEDS	LEAVES	BARK	PITH EXUDATE	HUNTER	OBSERVATION	FAECES	REMAINS WADGE
Cassia siberiana	Caesalpiniaceae	Syndja	Sindjan	Gbamgban		x						x			
Acacia pennata	Mimosaceae								x			x			
Albizia adianthifolia	Mimosaceae				Pan (M), Gbaan (G)						x	x			
Borassus aethiopium	Arecaceae	Doubé				x						x			
Carica papaya	Caricaceae	Budi			Iritike (M), Yeletiga (G)	x						x			
Detarium microcarpum	Caesalpiniaceae	Pompadogo				x						x			
Ficus exasperata	Moraceae	Ngegue				x						x			
Morus mesozygia	Moraceae				Gangu (M), Kagbe (G)	x						x			
Musa sapientum	Musaceae	Banana			Buro (M)	x						x			
Prosporis africana	Mimosaceae	Celen				x						x			
		Bembé				x						x			
		Boulemboitché				x						x			
		Cée				x						x			
		Dabakala Sounsoun				x						x			
		Djalla				x						x			
		Djarundé-Reme				x						x			
		Djohé					x					x			
		Doundouké tchiangol				x						x			
		Faforou				x						x			
		Fanda Paracoo				x						x			
		Farando				x						x			
		Filafitare				x						x			
		Fourma				x						x			
		Ghélena				x						x			
		Gnassi				x						x			
		Gossé				x						x			
Strychnos spinosa	Loganiaceae	Goundonggoulong				x						x			
		Kayo				x						x			
		Korombo				x						x			
		Koto				x						x			
		Kounjé				x						x			
		Nonca-Andac				x						x			
		Sounsoun				x						x			
		Sousé				x						x			
		Tainicoula				x						x			
		Wong				x						x			
			Borona			x						x			
			Sinya			x						x			
			Wari			x						x			
				Bansouma		x						x			
				Doundhereh		x						x			
					Sein	x						x			
Honey												x	x		
Termites												x	x		
Ants												x	x		
Chickens												x			
Goats												x			
Sheep												x			
Calves												x			

Table 9. Top 10 plant species most frequently used for nesting

Plant species	No. nests	% of sample
Erythrophleum suaveolens	198	19.8
Elaeis guineensis	75	7.5
Parkia biglobosa	67	6.7
Pterocarpus erinaceus	55	5.5
Parinari excelsa	49	4.9
Khaya senegalensis	35	3.5
Cola cordifolia	26	2.6
Sterculia tragacantha	26	2.6
Carapa procera	23	2.3
Anthonotha crassifolia	19	1.9
TOTAL	**573**	**57.3**

The overall mean height of chimpanzee nests was 13.74m±.19 (n=941; Range 0m-35m) (**Figure 32**).

Figure 32. Percent of nests in each height category (m)

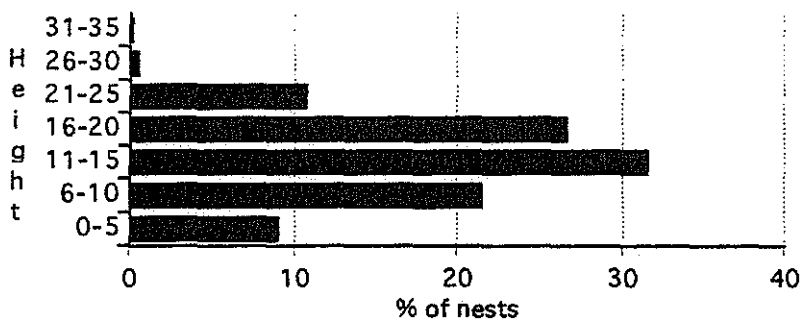


Table 10 compares the height of nests, height of tree used for nesting, diameter of tree used for nesting, nest group size and the number of nests per tree for each of the four regions of Guinea.

Nests were lowest in the Fouta Djallon and highest in Guinée Maritime. Several ground nests were found, especially in the Fouta Djallon (**Plate 14**). These were most probably night nests as they had faeces inside or next to them. Hunters said that chimpanzees make nests on the ground when they (1) are in menstrus, (2) are pregnant, (3) have new born babies. In two locations where ground nests were found, hunters reported a chimpanzee who was blind and another who was paralysed.

The average height of tree used was 17.65±.23 (n=935, Range: 0-37m). The highest trees used were in Guinée Maritime and the lowest in Haute Guinée. The average diameter of trees was 56.96± 8.19 (n=569), smallest diameter being in Guinée Forestière and largest in the Fouta Djallon.

The overall average size of a nest group was 3.13±.22 (n=264, Range 1-37). Nest groups tended to be slightly larger in the Fouta Djallon and smaller in Haute Guinée. This is comparable to other studies. For example Moore (1986) found that in Mali about 35% of groups had three or more nests versus 60% in Ugalla. The average number of nests in one tree was 1.55±.04 (n=592,Range 1-10). Once again, a greater number of nests per tree was found in the Fouta Djallon and the least in Guinée Maritime.

Baldwin *et al.*, (1981) and Fruth and Hohmann (1994) give excellent reviews and comparisons between nesting behaviour of different populations of chimpanzees.

Vegetation

Of all nests for which vegetation type was recorded (n=960) 6% were found in closed humid forest, 31% in closed dry forest, 30% in open forest, 16% in gallery forest, 15% in wooded savanna and 2% in agricultural land (**Figure 33**)

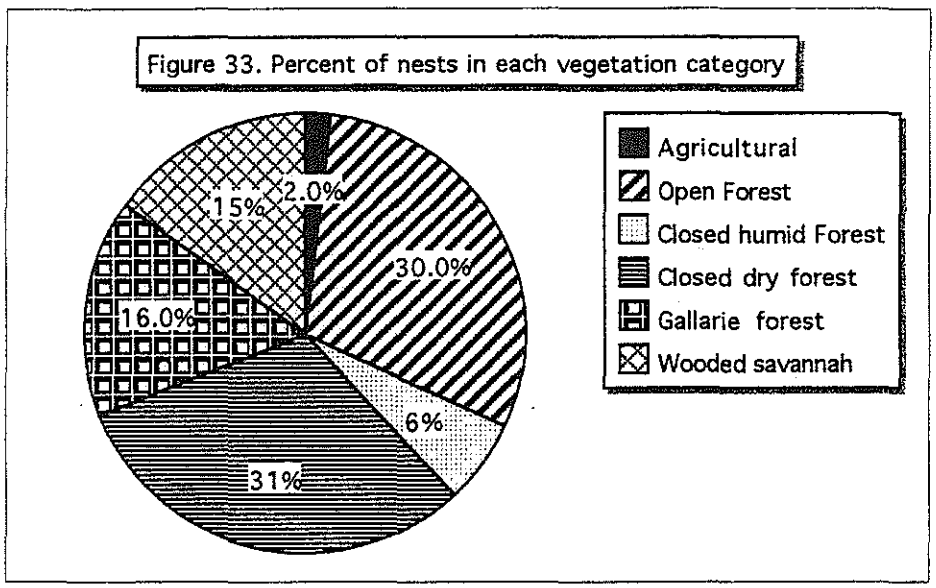


Plate 13. Nests made in the crown of palm trees in Guinée Maritime

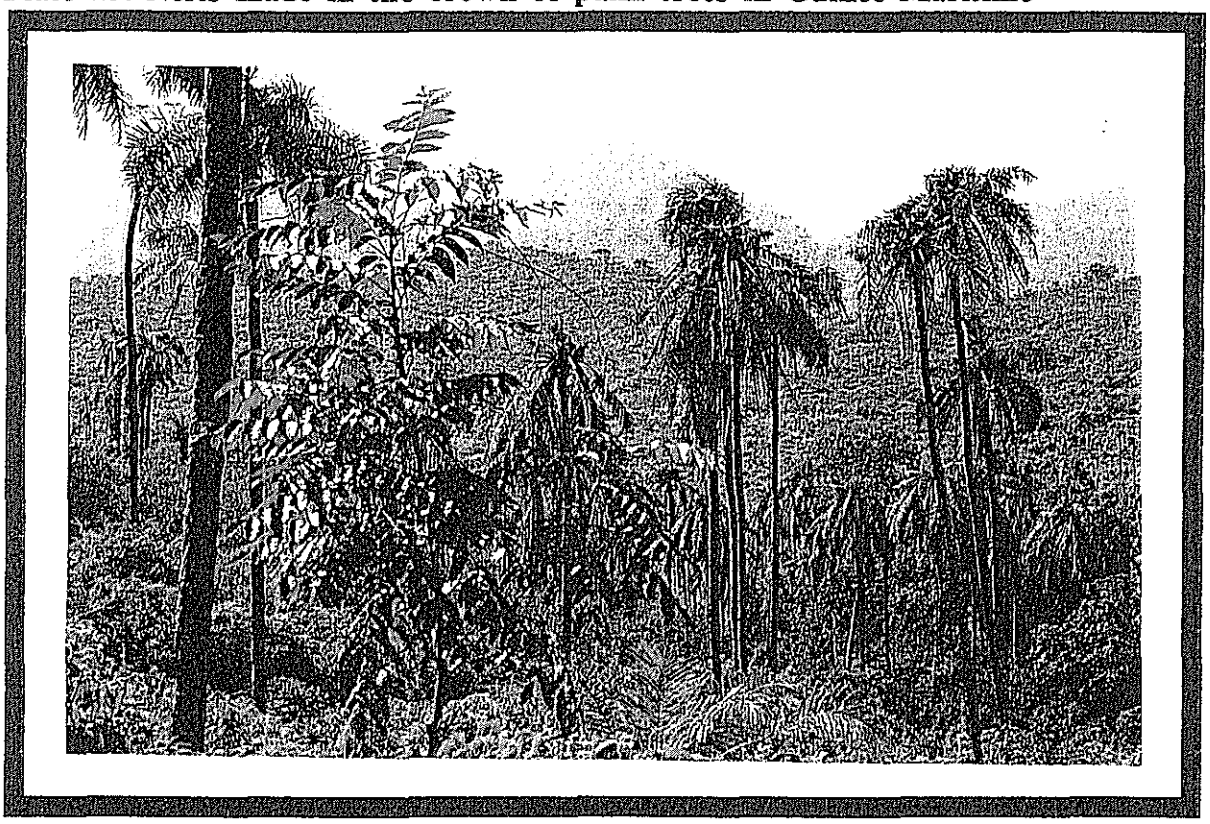
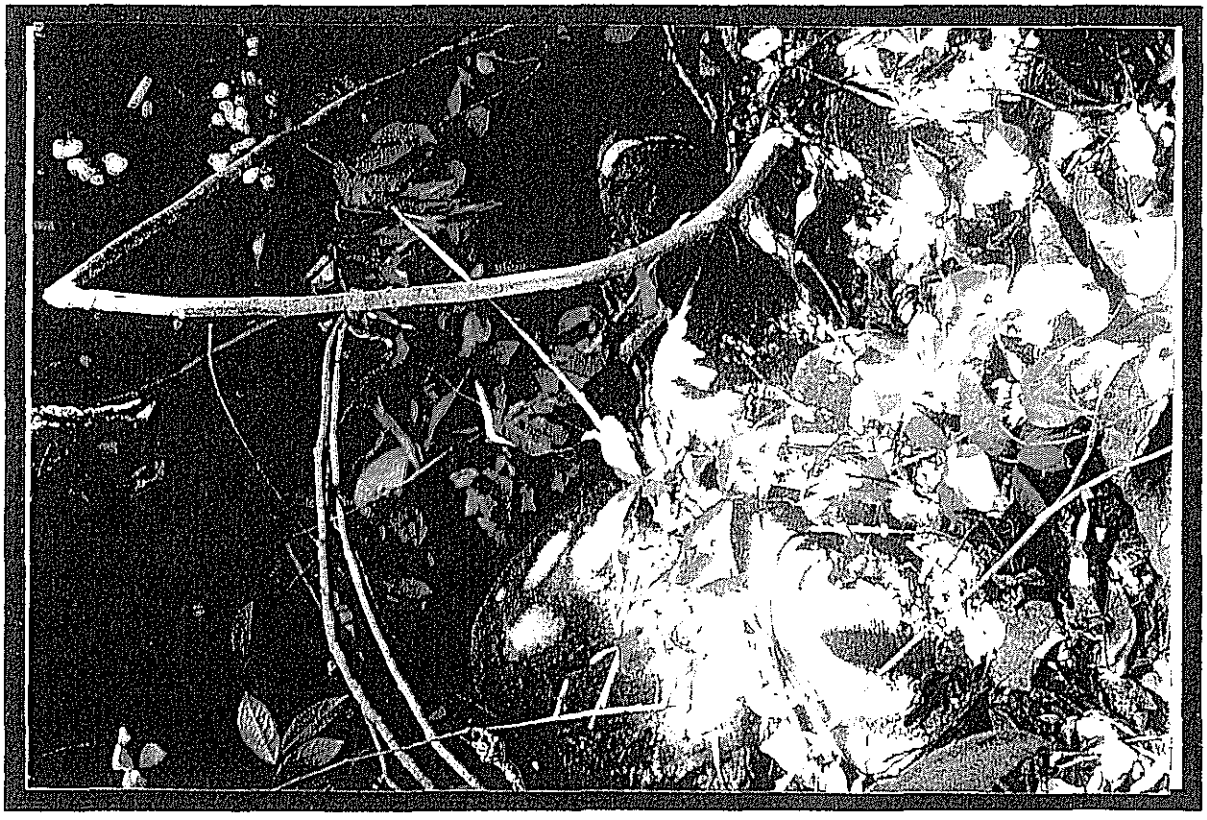


Plate 14. Ground nest



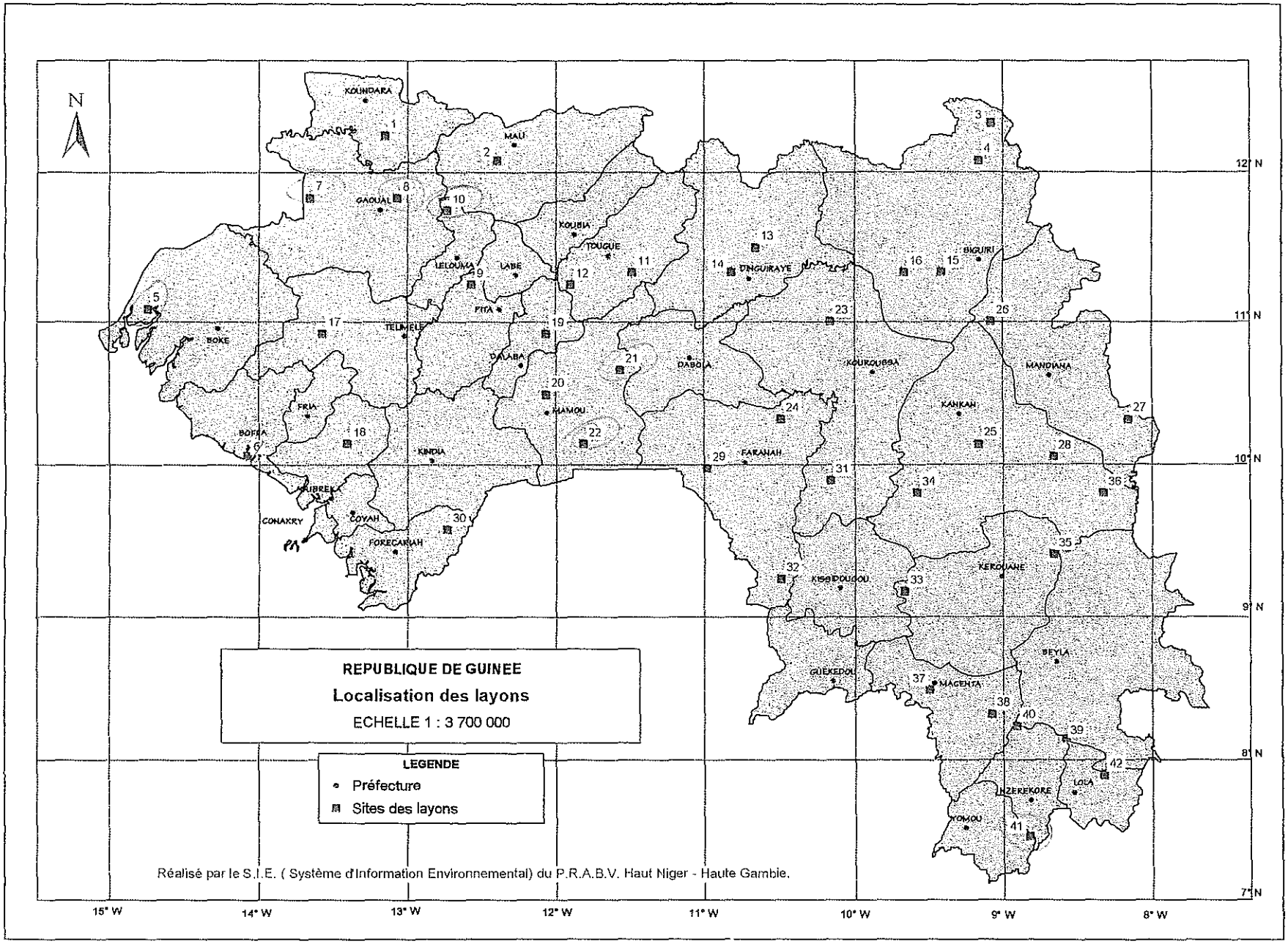


Figure 34. Map showing the location of the transects in Guinea

Table 10. Comparison of chimpanzee nests in 4 regions of Guinea

Nest height

	Mean	±SE	N
Fouta Djallon	13.35	0.23	652
Guinée Forestière	14.33	0.34	160
Guinée Maritime	15.40	0.75	81
Haute Guinée	14.25	0.76	48
TOTAL	13.74	0.19	941

Tree height

	Mean	±SE	N
Fouta Djallon	17.65	0.30	646
Guinée Forestière	17.16	0.44	160
Guinée Maritime	19.02	0.85	81
Haute Guinée	16.96	0.84	48
TOTAL	17.65	0.23	935

DBH

	Mean	±SE	N
Fouta Djallon	62.07	2.57	418
Guinée Forestière	36.31	5.25	39
Guinée Maritime	46.88	3.32	76
Haute Guinée	39.39	3.38	36
TOTAL	56.86	2.02	569

GROUP SIZE

	Mean	±SE	N
Fouta Djallon	3.45	0.17	618
Guinée Forestière	2.15	0.19	58
Guinée Maritime	2.36	0.24	104
Haute Guinée	3.29	0.28	46
TOTAL	3.13	0.13	826

NUMBER OF NESTS IN THE SAME TREE

	Mean	±SE	N
Fouta Djallon	1.71	0.05	637
Guinée Forestière	1.41	0.14	82
Guinée Maritime	1.20	0.04	163
Haute Guinée	1.44	0.15	36
TOTAL	1.55	0.04	918

Stone Tool Use

A stone tool-use site was found in the Dieke forest during a transect in this region. The start of transect was located at 7°30'N 8°50'W. Two boulders with the length, breadth and height dimensions of 30x28x23cm and 38x40x34 cm were discovered on the west to east side of the transect square. Stone tools were found on top of these boulders with scattered remains of broken nuts. Piles of broken nuts were found beside each boulder. The tools were two stones measuring 13x15x7cm and 9x11x6cm. Both boulders and hammers had evidence of wear from cracking nuts and one of the boulders had a deep impression worn into it where the nut could be securely placed so that the nut did not move when it was being hit. The first boulder was 6m 10cm from the *Panda oleosa* tree trunk and the other was 3m 20cm the other side of the trunk. The site was found in dense humid forest and on a slope half way up a large mountain.

Panda oleosa nuts have previously been observed to be cracked open by chimpanzees using stone tools at other sites, including Tai in the Ivory Coast (Boesch and Boesch, 1983) and Sapo in Liberia (Anderson *et al.*, 1983). Chimpanzees at Bossou in Guinea have not been observed to crack open *Panda* nuts but have been observed to crack open the seeds of the oil palm, *Elaeis guineensis* (Sugiyama and Koman, 1979).

Use of hammers and anvils to crack nuts for food has been observed in at least 13 populations but has also been confirmed to be absent in many populations as well (McGrew *et al.*, 1997). The use of stone tools is a behaviour that is mainly observed in west Africa by the sub-species of chimpanzee *Pan troglodytes verus*.. Boesch *et al.* (1994) have suggested that the eastern boundary for the occurrence of nut cracking behaviour is the N'zo-Sassandra River in the Ivory Coast. To my knowledge, this is the most northern record for stone tool use by chimpanzees.

RESULTS PART ONE: CHIMPANZEE CENSUS

III. TRANSECTS

The transect methodology was based on a nationwide census on chimpanzees and gorillas in Gabon (Tutin and Fernandez, 1983). In a country such as Gabon where more than 75% of the country is covered in relatively undisturbed forest, the chances that a randomly placed transect would fall into suitable habitat is high. In a country such as Guinea, where forest cover is very low, many transects would be expected to fall in unsuitable habitat. If an up to date and detailed vegetation map of Guinea was available, then this would avoid placing transects in unsuitable habitat. Such maps were not available for Guinea however, at the time this census was conducted.

8 → nests Transect
17 → nest out of Ts
21 → P
46 ?

Figure 34 shows the location of the 42 transects in Guinea and **Table 11** gives their exact position). Given that there is very little forest left in Guinea and that chimpanzees have a very clumped distribution, on only 8 out of 42 transects, chimpanzee nests were observed. If nests were not observed on the transect and if time allowed, then reconnaissance surveys were conducted within the 10x10km squares. Chimpanzee presence was confirmed through observation of nests in 17 out of 42 squares. In 21 out of the 42 10x10km squares chimpanzees were said to be present. This means that the chance of placing a 10km by 10km square in an area where there are chimpanzees in Guinea, is approximately 50%.

Nest duration

In total 21 nests were monitored in order to determine the average nest duration, as described in the Methods. At the time of writing this report, not all nests had completely decayed and therefore the true mean nest duration is probably slightly larger than what is given in this report. A longer nest duration would mean that the number of chimpanzees in Guinea given in this report is a slight overestimation of the true population size. **Table 12** gives a list of the nests that were monitored and the duration for which they were visible. The average nest duration was determined to be 221±22 days.

As mentioned in *Results Part I: Reconnaissance Surveys,* many of the nests in Guinée Maritime were found in palm trees. On transect number 5 in Sansaly, Boké, all nests on the transect were constructed in palm trees (n=27). It is not known exactly how long nests in palm trees can last but hunters say that they can last for up to 2 years. Palm leaves are extremely durable and often stay alive for some time after nests are made. It is hoped that in the future, the *Projet de Conservation des Chimpanzés* can monitor nests made in palm trees in order to determine how long they last, but this was beyond the scope of the present study. For the present analysis, data from transect number 5 had to be discarded.

42 transect
42 × 5200 m = 218,4 km
247 nest
EA = 1,13

$$\frac{247}{218,4 \times a} = 19,75$$

$$247 = 19,75 \times 218,4 \times a$$

$$247 = 4313,4 \times a$$

$$\frac{247}{4313,4} = a \rightarrow a = 0,057$$

~ 57 m

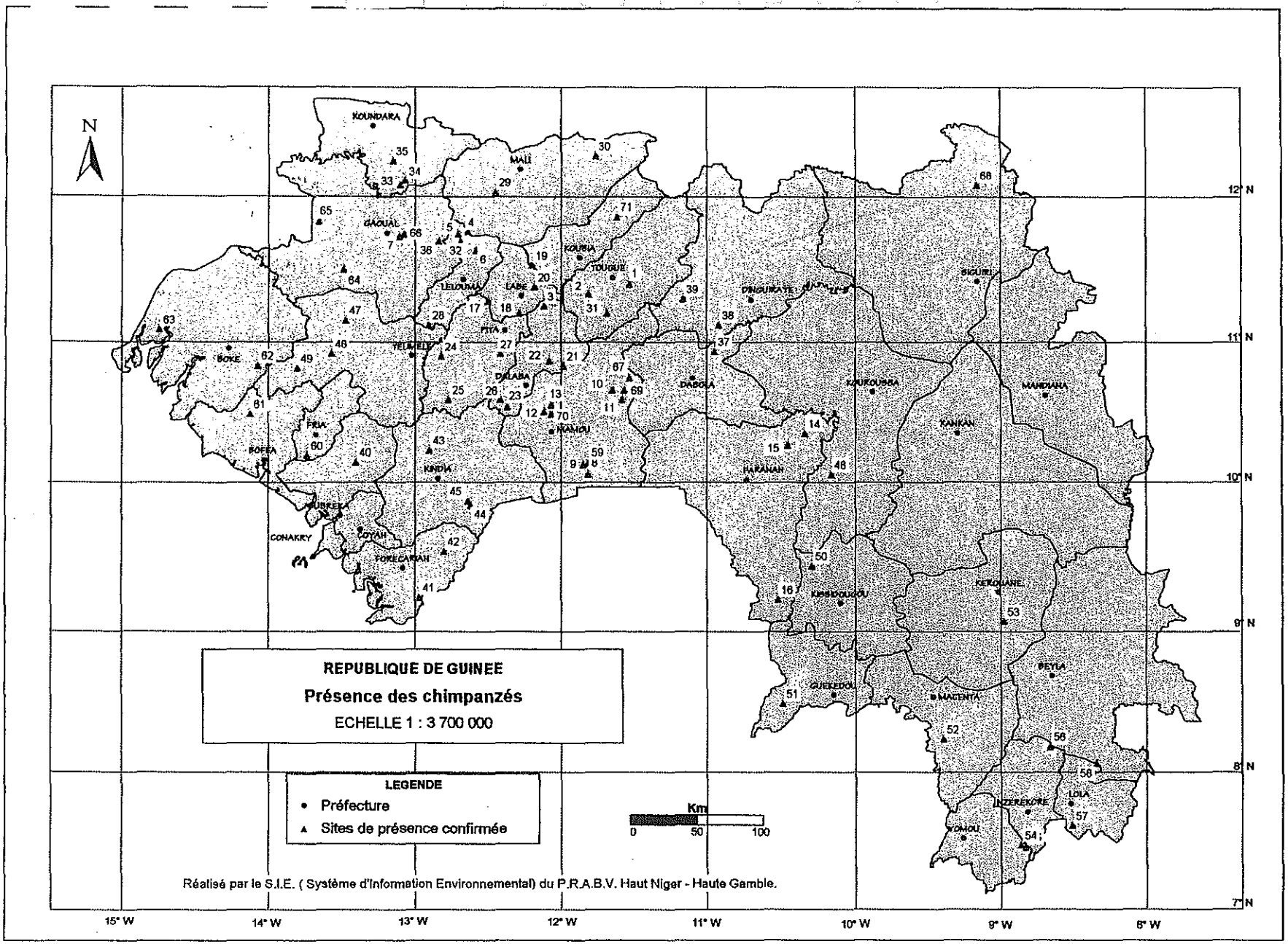


Figure 28. Map showing all areas where chimpanzee presence was confirmed

Table 11. Location of Transect Sites

	DATE	VILLAGE	SOUS-PREFECTURE	PREFECTURE	GPS
1	14/9/96	Ndama	Guingan	Koundara	12°15'N 13°10'W
2	16/5/97	Hamdalaye	Lebekeri	Mali	12°05'N 12°25'W
3	29/4/97	Kiri	Niagassola	Siguiri	12°20'N 9°05'W
4	30/4/97	Fidako	Niagassola	Siguiri	12°05'N 9°10'W
5	15/4/97	Wassadou	Sansalé	Boké	11°05'N 14°45'W
6	12/4/97	Siria	Tanene	Boké	10°50'N 14°05'W
7	19/4/97	Moyerai	Koumbia	Gaoual	11°50'N 13°40'W
8	21/4/97		Konsitel	Gaoual	11°45'N 13°05'W
9	3/2/96	Djollo Fello	Timbi Madina	Pita	11°15'N 12°35'W
10	10/9/96	Sinnthiourou	Linsan	Lelouma	11°45'N 12°45'W
11	17/1/96	Kegna Oula	Kollet	Tougué	11°20'N 11°30'W
12	19/1/96	Fogo	Fatako	Tougué	11°15'N 11°55'W
13	26/4/97	Bilikiti	Diatifere	Dinguiraye	11°20'N 10°50'W
14	30/9/96	Lapikou	Lansanaya	Dinguiraye	11°30'N 10°40'W
15	1/5/97	Ouran	Siguiri	Siguiri	11°20'N 9°25'W
16	2/5/97	Madenta	Siruiri	Siguiri	11°20'N 9°40'W
17	7/1/97	Tyimmouri	Konsotami	Télémélé	10°55'N 13°35'W
18	15/11/96	Kambo	Faléssadé	Dubreka	10°10'N 13°25'W
19	8/5/97	Fougoumba	Ditin	Dalaba	10°55'N 12°05'W
20	9/5/97	Kouramoké	Tolo	Mamou	12°30'N 12°05'W
21	3/5/97	Koulako	Saramoussaya	Mamou	10°40'N 11°35'W
22	20/3/97		Ouré Kaba	Mamou	10°10'N 11°50'W
23	2/5/97	Mountountoun	Sanguiana	Kouroussa	11°00'N 10°10'W
24	13/12/96	Sirakoro	Bendou	Faranah	10°20'N 10°30'W
25	26/3/96	Sana	Tintioulen	Kankan	10°10'N 9°10'W
26	1/4/97	Sansando	Sansando	Mandiana	11°00'N 9°05'W
27	26/10/96	Ouyari	Saladou	Mandiana	10°20'N 8°10'W
28	19/10/96	Sansando	Baranama	Kankan	10°05'N 8°40'W
29	7/12/96	Yatia	Heremakono	Faranah	10°00'N 11°00'W
30	20/11/96	Bentemodouya	Sinkhourou	Forecariah	9°35'N 12°45'W
31	13/12/96	Nongoya	Benfélé	Kouroussa	9°55'N 10°10'W
32	30/3/96	Kobikoro	Kobikoro	Faranah	9°15'N 10°30'W
33	6/2/97	Bandiraya	Bandama	Kissidougou	9°10'N 9°40'W
34	17/10/96	Yiradou	Moribaya	Kankan	9°50'N 9°35'W
35	15/2/97	Linko	Linko	Kerouané	9°25'N 8°40'W
36	21/10/96	Kodiana	Boula	Kankan	9°50'N 8°20'W
37	9/2/97	Macenta	Macenta	Macenta	8°30'N 9°30'W
38	12/2/97	Yiré	Sérédou	Macenta	8°20'N 9°05'W
39	10/3/97	Alaminata	Gouéké	Nzérékoré	8°10'N 8°35'W
40	12/3/97	Pabou	Koropara	Nzérékoré	8°15'N 8°55'W
41	8/3/97	Forêt Classe Diéké	Diéké	Yomou	7°30'N 8°50'W
42	17/3/97	Kasieta	Kokota	Lola	7°55'N 8°20'W

Table 12. Nest duration of 21 nests that were monitored in Labé, Fouta Djallon
*Nests which had not yet completely decayed at he time of writing this report

LOCATION	NO.	START	FINISH	DURATION
Dalein	1	29/12/96	16/5/97	138
Dalein	2	29/12/96	16/5/97	138
Dalein	3	29/12/96	*1/12/97	336
Dalein	4	29/12/96	8/6/97	138
Dalein	5	29/12/96	*1/12/97	336
Dalein	6	29/12/96	16/5/97	138
Dalein	7	29/12/96	16/5/97	138
Dalein	8	29/12/96	*1/12/97	336
Dalein	9	29/12/96	*1/12/97	336
Dalein	10	29/12/96	25/5/97	135
Dalein	11	29/12/96	*1/12/97	336
Noussi	1	9/10/96	24/2/97	138
Noussi	2	9/10/96	*1/12/97	417
Noussi	3	9/10/96	24/2/97	138
Noussi	4	9/10/96	13/5/97	214
Noussi	5	9/10/96	17/2/97	131
Noussi	6	7/12/96	24/5/97	168
Noussi	7	7/12/96	24/5/97	168
Noussi	8	7/12/96	5/7/97	182
Noussi	9	7/12/96	*1/12/97	359
			MEAN	**221.00**
			±SE	**22.08**

Nest visibility

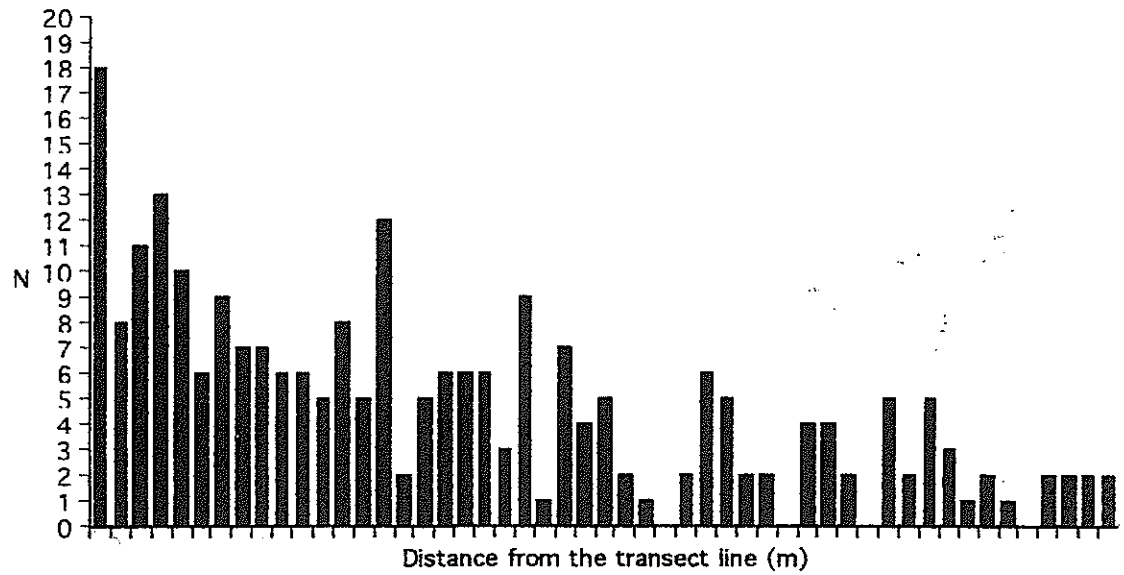
In total, on all transects 274 nests were observed. The 27 nests from transect 5 were discarded (see above), leaving a sample size of 247 nests. All outlying nests, at greater distances than 50 m were then discarded (n=4) to give an overall sample size of 243 nests (Buckland *et al.*, 1993). The number of nests per transect varied from 0 to 90. The transects on which nests were observed, were as follows:

R = 221 day

Transect 5: 27 nests (discarded because in palm trees)
Transect 6: 22 nests = 22/510 x 0,057 = 742 nests/km² = 0,26 dung/km²
Transect 7: 74 nests = 74/0,2964 = 249,6 = 0,9
Transect 8: 15 nests = 15/0,2964 = 50,6 = 0,18
Transect 10: 3 nests = 3/0,2964 = 10,12 = 0,02
Transect 21: 90 nests = 303 = 1,09
Transect 22: 25 nests = 84,3 = 0,3
Transect 41: 14 nests = 47,2 = 0,17

Figure 35 shows the number of nests observed at increasing perpendicular distance from the transect.

Figure 35. Frequency of observations at increasing distance from the transect line



When DISTANCE was run on all the data, the results had enormous 95% confidence interval, primarily due to the incredible variation in the number of nests between transects. Because chimpanzee populations are so clumped, there were either zero nests on transects or very high density. The nest density estimate for chimpanzees for the whole of Guinea was 19.755±9.711. After correcting for day nests (-20%), this gives 15.804±7.769. Divided by the average nest duration, this gives a mean density of 0.0715 (0.033-0.118) chimpanzees/km2 for the whole of Guinea. Multiplied by the area (245, 857 km2), this gives **17,582 (8,113-29,011)** chimpanzees.

Several authors have suggested that because chimpanzee nests are usually clumped, it is better to look at the density of nest sites as opposed to individual nests, and then to divide this number by the average size of a nest group. The nest group density estimate for chimpanzees for the whole of Guinea was 5.9311±2.662. Multiplied by the average nest group size on the transects (3.6587 nests/group), this gives average chimp nest density of 21.70±9.59.After correcting for day nests, this gives 17.804±7.672. Divided by the average nest duration, this gives a mean density of 0.081 (0.042-.128) chimpanzees/km2 for the whole of Guinea. Multiplied by the area (245, 857 km2), this gives **19,914 (10,326-31,470)** chimpanzees. Since there may be a tendency to observe larger nest groups from the transect line, this estimate was recalculated with the nest group size found during reconnaissance surveys (3.13±0.22). After all calculations and corrections, this gave a final estimate of **16,520** chimpanzees.

Transects => $\bar{x} = 5.9$

Reconnaissance => $\bar{x} = 3.13$

Due to the fact that confidence intervals were so enormous, it was decided instead to determine chimpanzee density for chimpanzee habitat only and then to extrapolate for the entire country, multiplying the density by the surface area of habitat appropriate for chimps in Guinea. In other words, DISTANCE was run, stratifying for chimpanzee habitat. Closed humid and dry forests, open forests, gallery forests and wooded savanna were included in chimpanzee habitat and savanna, steppes, agricultural land and urban areas were included as non-chimpanzee habitat.

When the default models provided by DISTANCE were compared (Uniform key with cosine adjustment terms, Uniform key with polynomial adjustment terms, Half normal key with hermite polynomial adjustment terms, and the Hazard rate key with cosine adjustment terms), it was concluded that the Half normal key with hermite polynomial terms provided the best fit to the data.

Using the Distance programme, the density of chimpanzee nests for potential chimpanzee habitat within Guinea was found to be a 66.5±18.6 nests/km2. (When transect number five (with the palm trees) is included in the calculation, the results are not in fact that much different, giving an original estimate of 66.71±17.25 nests/km2.)

This needs to be corrected for day nests (-20%) as mentioned in Methods, which gives a nest density of 53.2±14.88 nest/km2.

If a nest lasts on average 221±22 days (see above), this gives a density of 0.240 with a range of **0.16-0.34 chimpanzee/km2.**

Determination of chimpanzee habitat

The percent of each habitat type could be determined from the percent of each habitat type represented on the transects, since the transects were randomly placed. Data from transects estimated that there is a total of 31.27% of chimpanzee habitat remaining in Guinea (i.e.76,879 km2) (**Table 13**).

Data from the surface areas of different vegetation types in the CTFT map (**Table 14, Figure 36**), as calculated by the *Système d'Information Environnemental du P.R.A.B.V. Haut Niger-Haute Gambie* were compared, this also gave a similar estimate for habitat appropriate for chimpanzees (32%). Comparisons between habitat types gave slightly different results than data from the transects, but this may be due to differences in definitions (**Table 15**).

If forest cover in Guinea is, 76,879 km2, this gives a total number of chimps in Guinea of **18,450 (12,300-26,139).**

Table 13. Distances along the transects represented by different vegetation categories (km)

No.	PREFECTURE	S-PREFECTURE	Wooded Savanna	Open Forest	Closed Dry Forest	Closed Humid Forest	Gallery Forest	Agricultural Land	Steppe	Thicket	Savanna	Other (Urband etc.)	CHIMP HABITAT	NON CHIMP HABITAT	TOTAL
1	Koundara	Guingan	246	399	1183	0	0	0	3273	0	99	0	1828	3372	5200
2	Mali	Lebekeri	0	1092	0	0	13	4095	0	0	0	0	1105	4095	5200
3	Siguiri	Niagassola	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
4	Siguiri	Niagassola	572	299	0	0	0	3334	995	0	0	0	871	4329	5200
5	Boké	Sansalé	2714	118	0	0	1915	453	0	0	0	0	4747	453	5200
6	Boké	Tanene	808	294	129	0	417	2033	1417	102	0	0	1648	3552	5200
7	Gaoual	Koumbia	539	4095	0	0	71	0	434	0	61	0	4705	495	5200
8	Gaoual	Kounsitel	283	3444	0	0	13	0	631	177	95	557	3740	1460	5200
9	Pita	Timbi Madina	0	132	0	0	0	2680	2368	20	0	0	132	5068	5200
10	Lelouma	Linsan	0	932	1460	0	0	2576	0	0	232	0	2392	2808	5200
11	Tougue	Kegna Oula	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
12	Tougué	Fatako	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
13	Dinguiraye	Diatifere	0	2504	191	0	0	719	1786	0	0	0	2695	2505	5200
14	Dinguiraye	Lansanaya	2445	651	504	0	85	450	0	0	959	106	3685	1515	5200
15	Siguiri	Siguiri	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
16	Siguiri	Siruiri	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
17	Télémélé	Konsotami	1716	489	210	0	71	400	1173	604	477	60	2486	2714	5200
18	Dubreka	Faléssadé	1600	0	0	0	0	1300	0	2300	0	0	1600	3600	5200
19	Dalaba	Ditin	881	1334	0	0	152	1162	1456	0	203	12	2367	2833	5200
20	Mamou	Tolo	0	32	165	0	61	2255	960	1001	489	237	258	4942	5200
21	Mamou	Saramoussaya	825	1828	634	0	0	262	1247	362	0	42	3287	1913	5200
22	Mamou	Ouré Kaba	1617	1023	0	0	284	1719	0	0	307	250	2924	2276	5200
23	Kouroussa	Sanguiana	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
24	Faranah	Bendou	1150	2723	0	0	144	263	155	0	645	120	4017	1183	5200
25	Kankan	Tintioulen	692	539	93	0	0	1592	0	0	2004	280	1324	3876	5200
26	Mandiana	Sansando	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
27	Mandiana	Saladou	1230	1389	0	0	0	711	0	0	1870	0	2619	2581	5200
28	Kankan	Baranama	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
29	Faranah	Heremakono	3269	1090	0	0	0	75	0	0	766	0	4359	841	5200
30	Forecariah	Sinkhourou	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
31	Kouroussa	Benfélé	1825	2489	0	0	0	0	0	0	886	0	4314	886	5200
32	Faranah	Kobikoro	1902	900	0	0	653	1576	0	0	169	0	3455	1745	5200
33	Kissidougou	Bandama	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
34	Kankan	Moribaya	2217	1461	0	0	16	637	0	0	869	0	3694	1506	5200
35	Kerouané	Linko	0	0	0	0	0	5100	100	0	0	0	0	5200	5200
36	Kankan	Boula	238	0	0	0	0	4786	0	0	176	0	238	4962	5200
37	Macenta	Macenta	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
38	Macenta	Sérédou	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
39	Nzérékoré	Gouéké	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
40	Nzérékoré	Koropara	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
41	Yomou	Dicke	0	0	0	3811	0	0	0	0	0	1389	3811	1389	5200
42	Lola	Kokota	0	0	0	0	0	5200	0	0	0	0	0	5200	5200
			26769	29257	4569	3811	3895	116178	15995	4566	10307	3053	68301	150099	218400
			12.26	13.40	2.09	1.74	1.78	53.20	7.32	2.09	4.72	1.40	31.27	68.73	100.00

Table 14. Surface area of habitat types in Guinea from CTFT(1989) map

A	Guinée Forestière
B	Transition Forêt/Savane
C	Guinée Occidentale et Miritime
D	Fouta Djallon et Contre-forts
E	Zone Soudano Guineenne Sud
F	Zone Soudano Guineenne Nord

CARTE	REGION	HABITAT TYPE	SURFACE AREA
		Ressources Concentrees	KM2
A1	C/D	Plantations	23
A2	A/C	Forêts denses et humides	1707
Ressources Semi-Concentrees (unités de 50-200 has)			
B1	E	Forêts sèche	12622
B2	F	Forêts sèches et savannes boisées	4517
B3	D	Forêts d'altitude	291
B4	B	Lambeaux de forêt dense humide et/ou sèche-savane boisée-forêt	115
B5	C	Lambeaux de forêt dense humide et/ou sèche-savane boisée-forêt	492
B6	A	Relique de sorêts denses humides en voie de défrichement	1922
Ressources Dispersees (unités de 5-50 ha en moyenne)			
C1	E	Mosaique de forêts sèches/savanes boisées/collines et cuirasses d	17476
C2	F	Mosaique de forêts sèches/savanes boisées/collines et cuirasses d	15709
C3	D	Forêts dégradées d'altitude	4415
C4	B	Relique de forêts sèches et/ou humides-savanes périforestières	4400
C5	C	Mosaique de forêts sèches/savanes boisées/collines et cuirasses d	2351
C6	A	Formations secondaires ligneuses, localement reliques de forêt de	12885
Ressources très Dispersées			
D1	E	Savanes arborées et jachères± ligneuses, bosqueteaux épargnés pa	17903
D2	F	Savanes arborées et jachères± ligneuses, bosqueteaux épargnés pa	17903
D3	D	Savanes arborées et jachères± ligneuses, bosqueteaux épargnés pa	10486
D4	B	Savanes arborées et jachères± ligneuses, bosqueteaux épargnés pa	14535
D5	C	Savanes arborées et jachères± ligneuses, bosqueteaux épargnés pa	12722
D6	A	Mosaique savane±arborée/formations secondaires-galeries forest	4962
Ressources très faibles et très dispersées			
E1	C/E/F	Zone agricoles fortement défrichées	14854
E2	D	Mosaique de savane±arborée de cultures et de jachères-quelques ar	13764
E3	C/E/F	Savanes±arborées des glacis, collines, plateaux et cuirasses	19118
E4	A/B	Savanes périforestières et zones fortement défrichées	21354
E5	C/E	Savanes faiblment arborées des massfs grèseux	5865
E6	A/B/C/D/I	Savane inondble et rizières	5666
E7	C	Savanes±arborés sur sables littoraux	476
M	C	Mangoreves±dégradées	3002
R	C/D	Recrûsarbustifs post forestiers.	2579
		TOTAL	**244112**

Table 15. Surface area of diffeent habitat types in Guinea from transect data and CTFT vegetation map

	DISTANCE ON TRANSECT (km)	PERCENT OF TRANSECT	SURFACE AREA OF GUINEA (km2)	CTFT (1989) CATEGORIES	CTFT (1989) SURFACE AREA (km2)
Wooded Savanna	26769	12.26	30134	C2+C4+C5	22460
Open Forest	29257	13.40	32935	B2+C1+C3	26408
Closed Dry Forest	4569	2.09	5143	B1+B3	12913
Closed Humid Forest	3811	1.74	4290	A2+B4+B5+B6+C6	17121
Gallery Forest	3895	1.78	4385		
Mangroves	0	0.00	0	M	3002
Agriculutre	116178	53.20	130784	A1+(D1-D5)+E1+E2+E4+E6+R	131788
Bouals	15995	7.32	18006		
Savanna	10307	4.72	11603	D6+E3+E5+E7	30421
Thickets	4566	2.09	5140		
Water	704	0.32	793		
Roads	1770	0.81	1993		
Villages	579	0.27	652		
TOTAL	**218400**	**100.00**	**245857**		**244112**
SUITABLE CHIMPANZEE HABITAT			**76888**		**78902**

Density for different habitat types

Sample sizes were not large enough to determine chimpanzee densities for different habitat types. Even when transects only in the Fouta Djallon and Guinée Maritime were considered, the only habitat type with a suitable sample size for calculations was open forest. The density of chimp nests in open forest in the Fouta Djallon and Guinée Maritime is 216.73 ±73.41 nests/km2.

RESULTS PART TWO: LARGE MAMMAL SURVEY

RESULTS PART TWO: LARGE MAMMAL SURVEY

I. QUESTIONNAIRE:

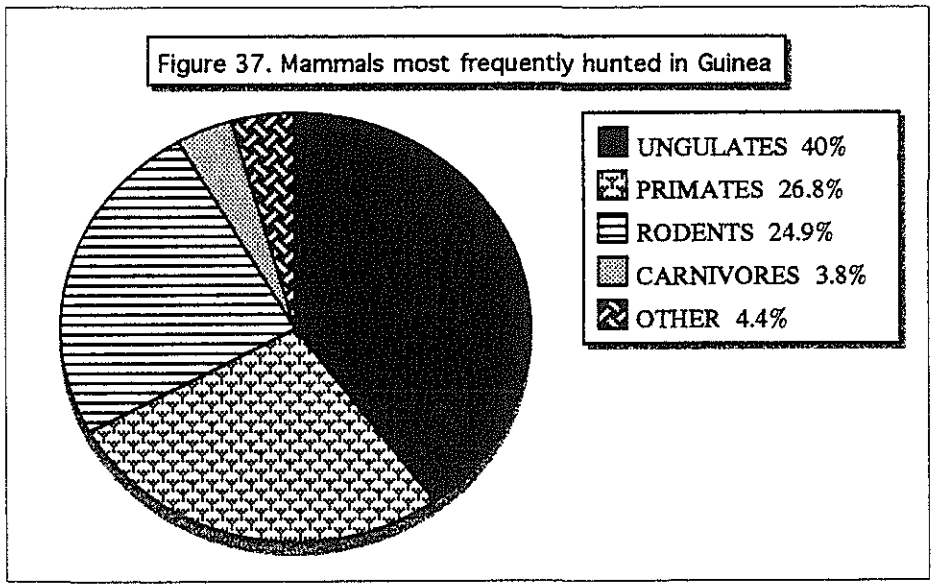
The results from the questionnaire on the presence or absence of other species of large mammals, though good for general guidelines, should not be weighted with much importance. The pictures of mammals enclosed in the questionnaire were in black and white. For some species with very obvious characteristics, there was probably little confusion. For other species however, it may have been extremely difficult to identify them from the pictures alone. Identification was probably especially difficult for some species such as the duikers or guenons, for which colour would have been important to distinguish between species. The results of the questionnaire can be found summarised in **Appendix XII.**

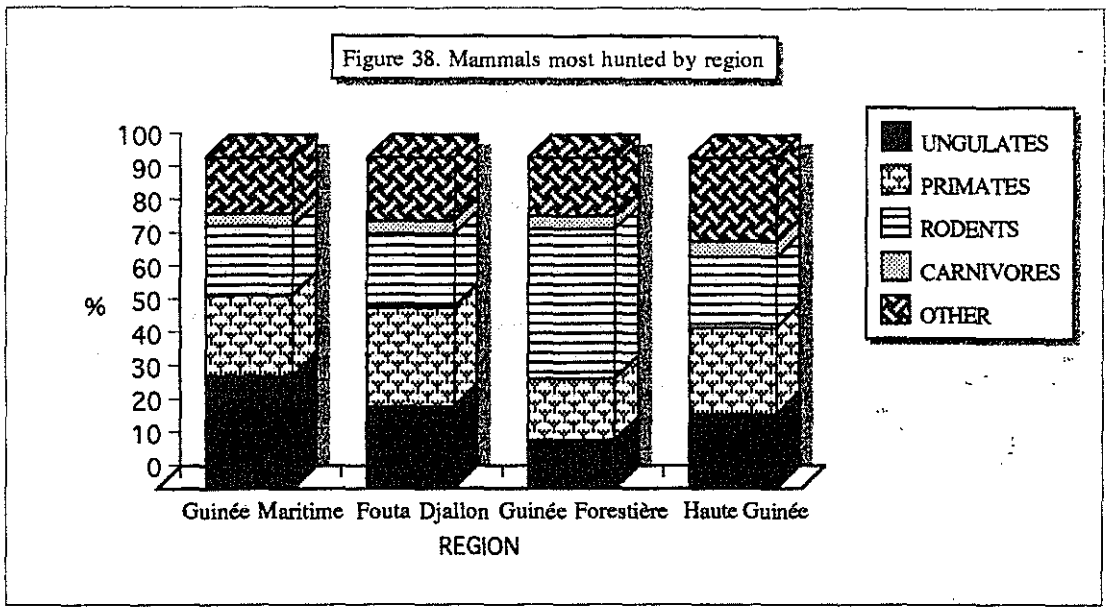
Crop raiding

The species most commonly was said to destroy crops were warthogs, red river hogs and primates. Various methods were observed in which farmers attempted to ward off animals, such as scarecrows, fences, pieces of metal that blew in the wind to make noise. Especially during harvest season, farmers would often live in their fields and dogs were often used to chase away animals and warn the farmers of the presence of any invaders. Although the Muslim people of Guinea do not generally eat meat, pigs are still often shot because they are such a problem for their crops.

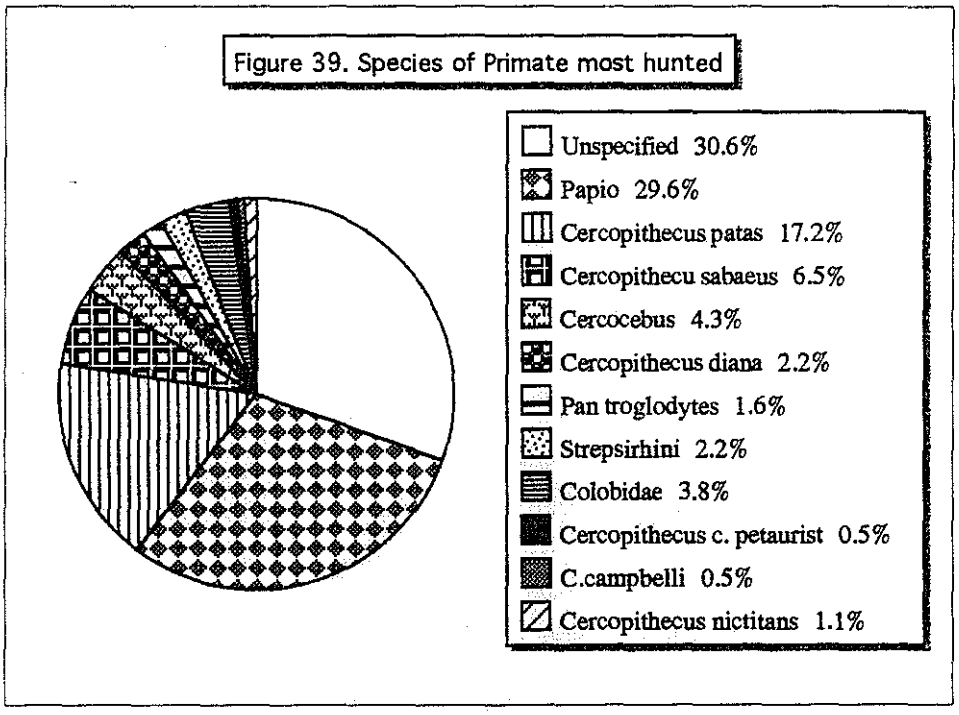
Hunting

Figure 37 shows which animals are most frequently hunted and **Figure 38** shows which species are most frequently hunted in each of the four regions of Guinea.

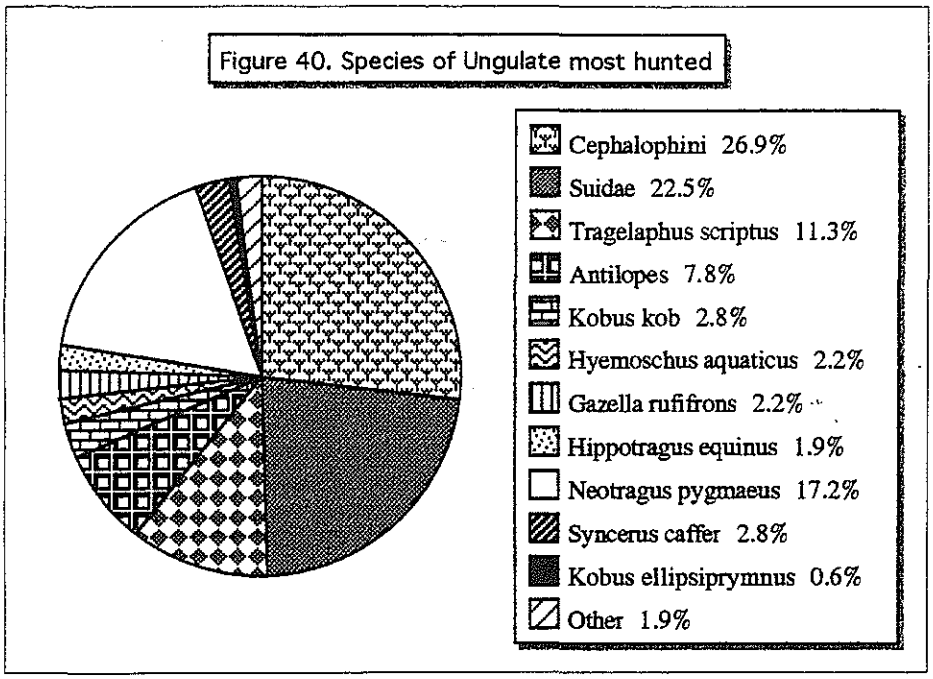




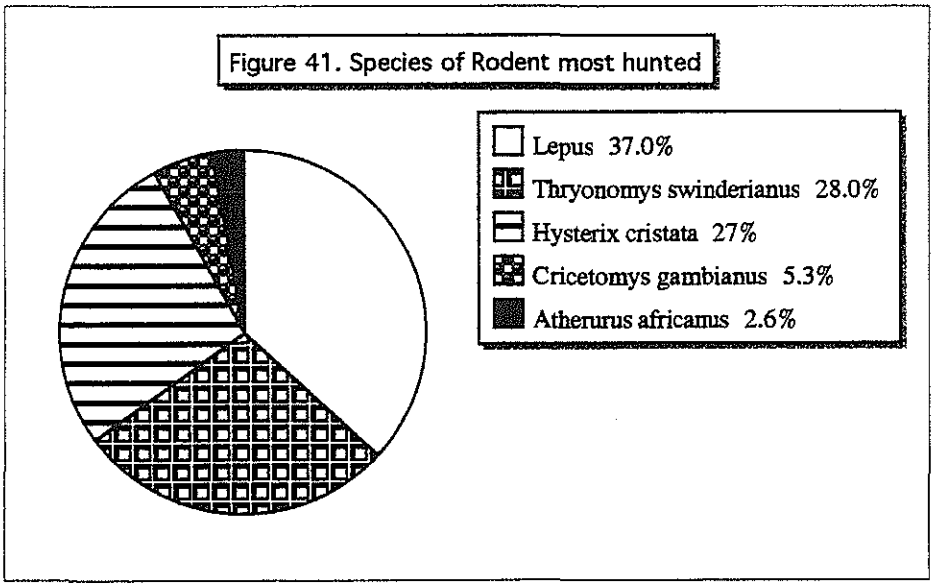
The most frequently hunted primate was the baboon, patas and vervet monkeys **Figure 39**



The most frequently hunted Ungulates were duikers, pigs and bushbuck **Figure 40.**



The most frequently hunted rodents are shown in Figure **Figure 41.**



Species the least hunted

In total, chimpanzees were the species mentioned the most frequently as a species that was not hunted (26% of all species mentioned), although this could have been a result of the fact that the questionnaire was based on this species!

Figure 42 to **45** shows the three species that least hunted for each region.

Figure 42. Mammals least hunted in Guinée Maritime

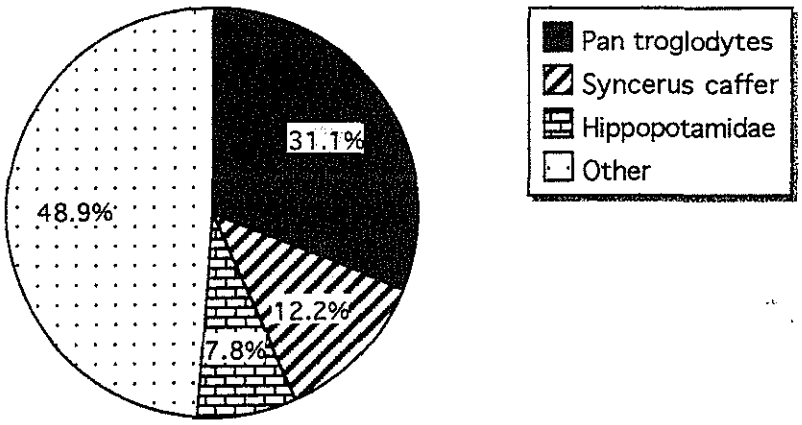
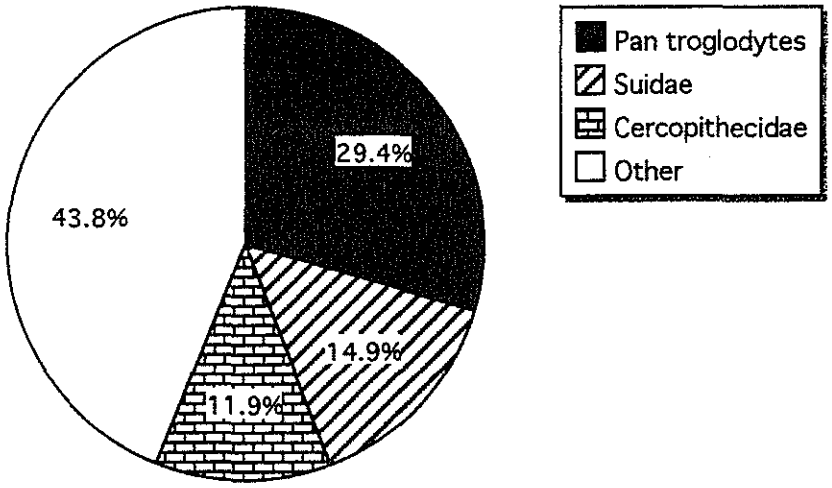
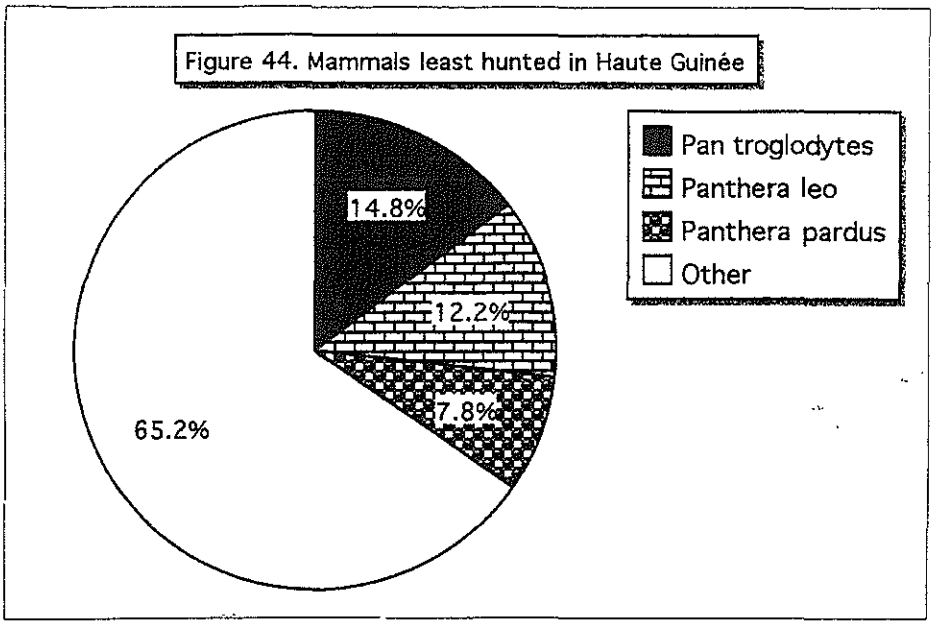
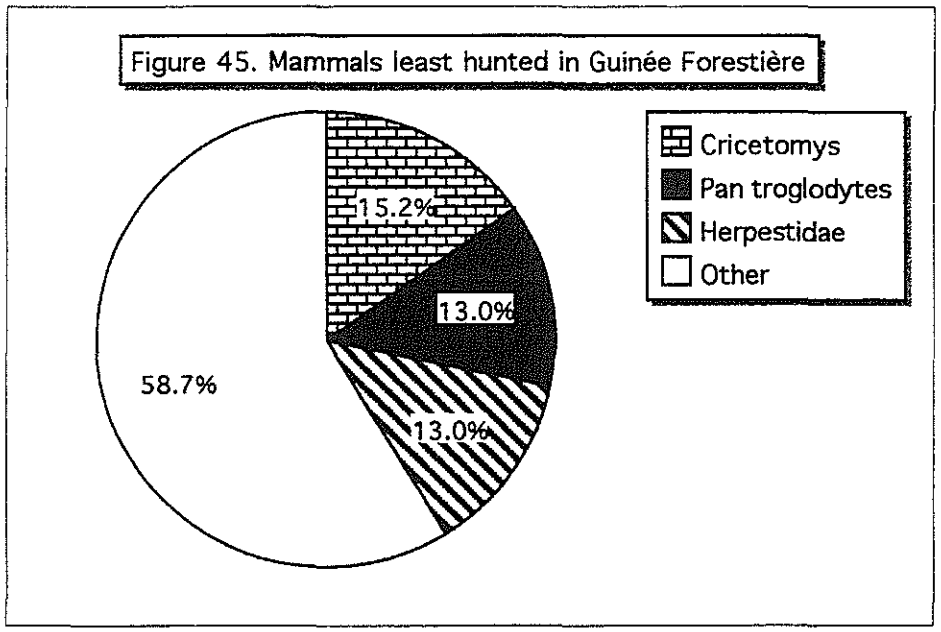


Figure 43. Mammals least hunted in the Fouta Djallon







Area the most hunted

Appendix XIII gives a list of the areas where hunting is highest for each Sous-Préfecture in Guinea and **Appendix XIV** gives a list of the areas where hunting is lowest.

RESULTS PART TWO: LARGE MAMMAL SURVEY

II. RECONNAISSANCE SURVEYS

In total 61 sites were visited where hunters were interviewed and reconnaissance surveys were made in the field for the large mammal survey (**Figure 46, Table 16**). The results can be found in **Appendix XV**. The names in the main languages in Guinea can be found in **Appendix XVI.**

In the present study, each site was visited only one day and therefore the information from this study can only be a very general indication of what species exist where. The literature on previous work on large mammals in Guinea is not reviewed here. Important documents on large mammals in Guinea and neighbouring areas include: Borque and Wilson (1990); Coe (1975); and Roche (1971). Barnett and Prangley (1997) provide and excellent and extremely in depth review of all the literature to date on mammals in Guinea and it is hoped that information from the present study can add to this. Barnett and Prangely (1997) state that "...it is clear that Guinea represents an excellent place for future mammalogical (and other) fieldwork, where major contributions can still be made even with simple survey work. Such work will also be of immense value in conservation planning." It is hoped that the data provided in this study can provide at least a foundation for future studies and help to provide guidelines for the location of protected areas.

The following are some special notes on those species which are listed as integrally protected in Guinea (see Methods: Study Site).

Endangered species:

Suidae

Western Giant Hog: *Hylochoerus meinertzhageni ivoriensis*

Giant hogs are listed by IUCN as "Rare". They were expected to occur only in the south of Guinea, but were reported by hunters to be fairly widespread throughout the country. Their presence however, was never directly confirmed.

Bovidae

Derby's Eland: *Taurotragus derbianus derbianus*

The Derby Eland is listed as "Threatened" (IUCN) and is believed to be extinct in Guinea, although it is reported to exist in Senegal near the Guinea border in the Niokolo-Koba National Parc (Dupuy and Verschuren, 1978) and Moore (1986) reported it to occur at low densities in Mali near the Baffing river near the Guinea border.

Horns of a Derby Eland were observed in a village in Niagassola in Siguiri (photograph available). They are also reported by hunters to occur in Hérémakono (Faranah), Sansale (Boké), Niagassola (Siguiri) and Koumbia (Gaoual). Hunters in Linsan reported that they migrated in to the Niallama Reserve but it is not known whether this is true.

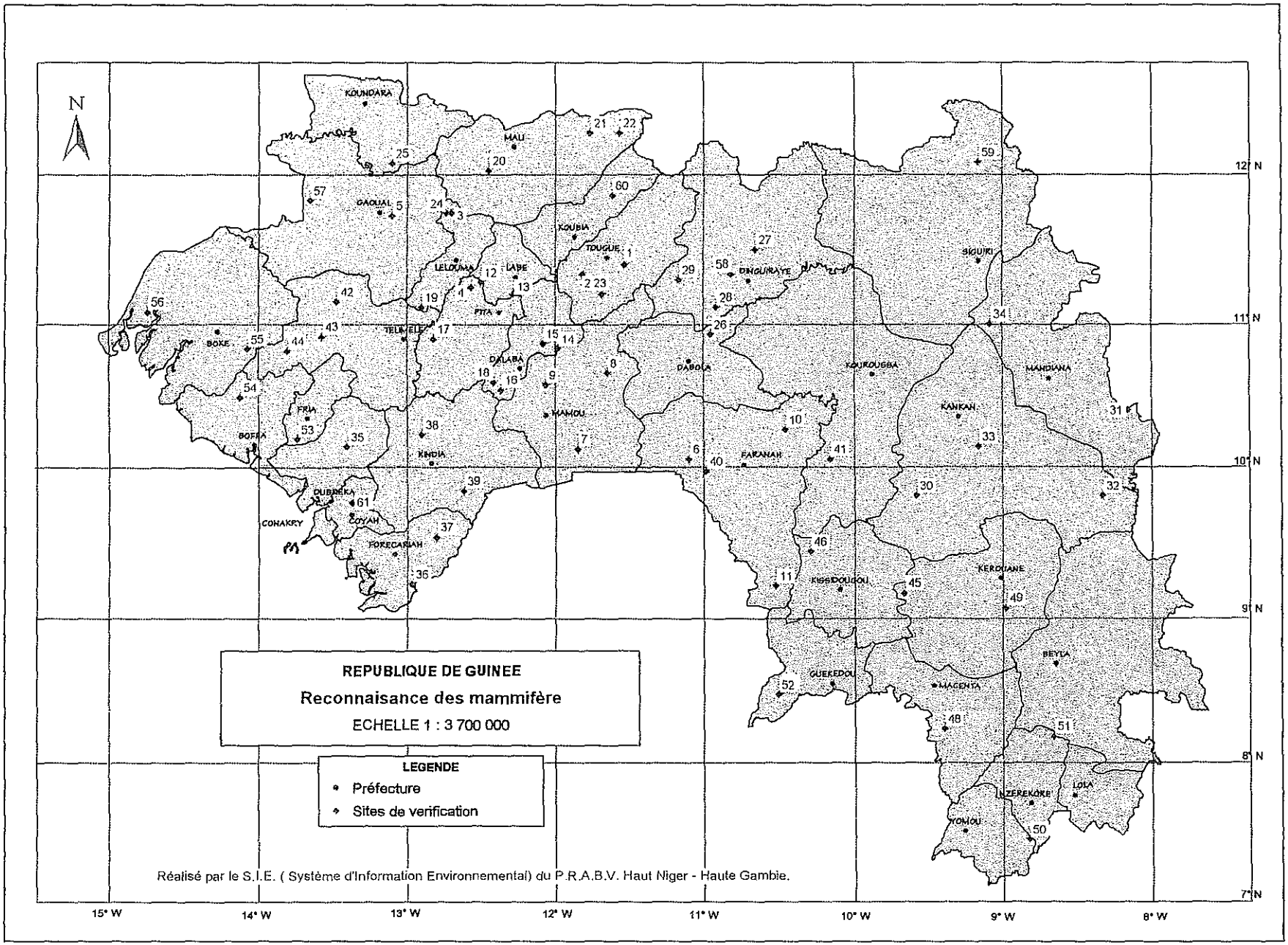


Figure 46. Map showing sites where large mammal surveys took place.

Table 16. Location of Mammal Surveys

	DATE	VILLAGE	SOUS-PREFECTURE	PREFECTURE	GPS
1	17/1/96	Kegna Oula	Kollé	Tougué	11°24'N 11°33'W
2	19/1/96	Fogo	Fatako	Tougué	11°20'N 11°50'W
3	27/1/96	Gueme	Linsan	Lelouma	11°45'N 12°43'W
4	3/2/96	Djollo Fello	Timbi Madina	Pita	11°15'N 12°35'W
5	7/2/96	Fello Digue	Konsitel	Gaoual	11°44'N 13°07'W
6	16/2/96	Bannekota	Ouré Kaba	Mamou	10°05'N 11°50'W
7	18/2/96	Fodea	Ouré Kaba	Mamou	10°09'N 11°52'W
8	20/2/96	Bagata	Saramoussaya	Mamou	10°40'N 11°40'W
9	25/2/96	Windeyetti	Tolo	Mamou	10°35'N 12°05'W
10	27/3/96	Sérékoro	Bendou	Faranah	10°17'N 10°28'W
11	30/3/96	Kobikoro	Kobikoro	Faranah	9°13'N 10°32'W
12	6/4/96	Chute de Sala	Diari	Labé	11°17'N 12°31'W
13	8/4/96	Roumirgo	Daralabé	Labé	11°12'N 12°18'W
14	12/4/96	Kourou	Gongôré	Mamou	10°50'N 11°60'W
15	13/4/96	Fougoumba	Ditin	Dalaba	10°52'N 12°06'W
16	16/4/96	Koba	Koba	Dalaba	10°33'N 12°23'W
17	24/4/96	Soindé	Ley Miro	Pita	10°54'N 12°50'W
18	26/4/96	Dikourou	Sangaréa	Pita	10°36'N 12°26'W
19	30/4/96	Horé Fello	Bourouwal	Télémélé	11°07'N 12°55'W
20	24/5/96	Nyongongie	Madina Wara	Mali	12°02'N 12°28'W
21	27/5/96	Bagata	Balaki	Mali	12°17'N 11°47'W
22	28/5/96	Dioulabaja	Balaki	Mali	12°17'N 11°35'W
23	2/6/96	Kondiéya	Kansangi	Tougué	11°12'N 11°42'W
24	10/9/96	Sinnthiourou	Linsan	Lelouma	11°45'N 12°45'W
25	13/9/96	NDama Hindé	Guingan	Koundara	12°05'N 13°07'W
26	27/9/96	Kankirabou	Bissikrima	Dabola	10°56'N 10°58'W
27	30/9/96	Lapikou	Lansanaya	Dinguiraye	11°30'N 10°40'W
28	2/10/96	Fadia	Selouma	Dinguiraye	11°07'N 10°56W
29	4/10/96	Santanfara	Kalinko	Dinguiraye	11°18'N 11°11'W
30	17/10/96	Yiradou	Moribaya	Kankan	9°50'N 9°35'W
31	19/10/96	Sansando	Baranama	Kankan	10°05'N 8°40'W
32	21/10/96	Kodiana	Boula	Kankan	9°50'N 8°20'W
33	23/10/96	Sana	Tintioulen	Kankan	10°10'N 9°10'W
34	26/10/96	Ouay	Saladou	Mandiana	11°00'N 8°10'W
35	15/11/96	Kambo	Faléssadé	Dubreka	10°10'N 13°25'W
36	19/11/96	Wamifily	Farmoréya	Forecariah	9°04'N 12°59'W
37	21/11/96	Tabekouré	Sikhourou	Forecariah	9°33'N 12°49'W
38	23/11/96	Hamadia	Bangouya	Kindia	10°15'N 12°55'W
39	24/11/96	Mamou	Madina Woula	Kindia	9°52'N 12°38'W
40	7/12/96	Yatia	Heremakono	Faranah	10°00'N 11°00'W
41	13/12/96	Nongoya	Benfélé	Kouroussa	10°05'N 10°10'W
42	4/1/97	Dounkirè	Missira	Télémélé	11°09'N 13°29'W
43	7/1/97	Tyimmouri	Konsotami	Télémélé	10°55'N 13°35'W
44	8/1/97	Karamangaki	Daramagnaki	Télémélé	10°49'N 13°49'W
45	1/2/97	Bagbé	Yombiro	Kissidougou	9°10'N 9°40'W
46	2/2/97	Sanankoro	Sangardo	Kissidougou	9°27'N 10°18'W
47	8/2/97	Kessedou	Wondé Kenema	Guékédou	8°30'N 10°30'W
48	11/2/97	Soundedou	Seredou	Macenta	8°15'N 9°24'W
49	14/2/97	Farafina	Konsonkoro	Kerouané	9°04'N 8°59'W
50	8/3/97	Forêt Classe Diéké	Diéké	Yomou	7°30'N 8°50'W
51	10/3/97	Alaminata	Goucké	Nzérékoré	8°12'N 8°40'W
52	16/3/97	Gambadougou	Fambadou	Lola	8°05'N 8°21'W
53	3/4/97	Barakhaya	Tormelin	Fria	10°13'N 13°45'W
54	5/4/97	Tagbé	Kolia	Boffa	10°30'N 14°08'W
55	12/4/97	Siria	Tanene	Boké	10°50'N 14°05'W
56	15/4/97	Wassadou	Sansalé	Boké	11°05'N 14°45'W
57	19/4/97	Moyerai	Koumbia	Gaoual	11°50'N 13°40'W
58	26/4/97	Bilikiti	Diatifere	Dinguiraye	11°20'N 10°50'W
59	30/4/97	Fidako	Niagassola	Siguiri	12°05'N 9°10'W
60	14/5/97	Ley Fello Madina	Ghadá Woundou	Koubia	11°52'N 11°38'W
61	9/6/97	Kouria	Kolla Khouré	Coyah	9°46'N 13°25'W

Lowland Bongo: *Tragelaphus euryceros euryceros*

Hunters reported this species to occur in the Forêt Classée of Ziama and Dieke and in Foumbadou in Lola. Tracks of bongo were observed in these locations.

Western Buffalo: *Synceros caffer brachyceros*

Buffaloes can still be found in those areas of Guinea with sufficient forest cover and low human population density. Hunters reported them throughout Guinea and tracks and dung was observed. In many areas however, they have already become locally extinct. Gipplotti and Dell'Omo (1996) saw signs of buffalo in Guinea Bissau in the Cantanhez forest near the border with Guinea and Moore (1986) reported seeing signs in Mali near the border with Guinea.

Elephants: *Loxodonta africana*

Elephants are listed "Endangered" by IUCN and in Appendix I by CITES. It is uncertain whether it is the smaller forest species (*Loxodonta cyclotis*) and/or the larger savanna form (*Loxodonta africana*) which occurs in Guinea. *Loxodonta cyclotis* is expected to occur in Guinée Forestière. Areas where elephants can still be found in Guinea include:

1. Forêt Classée de Ziama in the Sous-Préfecture of Seredou and the Préfecture of Macenta. Here tracks and feeding remains were observed.

2. Near the village of Gambadougou in the Sous-Préfecture of Foumbadou and the Préfecture of Lola. Hunters say that elephants migrate from Côte d'Ivoire to this small forest patch. Tracks of elephants were observed.

3. Near the frontier with Mali in the Sous-Préfecture of Niagassola and the Préfecture of Siguiri. No sign was seen of elephants during the present study but hunters reported that they saw elephants here from time to time.

4. Mont Bero in the Sous-Préfecture of Goueke in the Préfecture of Nzérékoré. Some hunters have reported seeing elephants here but very rarely. No sign of elephant was observed during the present census.

5. Near the frontier with Guinea Bissau in the Sous-Préfecture of Dabiss in the Préfecture of Boké. Hunters spoke of occasionally seeing elephants here but not for many years. It is possible, therefore that they are now extinct in this region. Gippoliti and Dell'Omo (1996) found that the last three elephants were killed about 10 years ago.

African Palm Civet (*Nandinia binotata binotata*)

This species was found to be fairly widespread throughout Guinea.

Colibidae

Olive Colobus: *Procolobus verus*

Olive colobus are listed in Class A (African Convention), Appendix II (CITES) and as Endangered (IUCN). The only place where this primate is said to be present is in the Forêt

Classées of Dieke and Macenta in Guinée Forestière and in Farmoreya (Forecariah) and Tormelin (Fria) in Guinée Maritime. This species was never directly observed.

Manidae

Giant pangolin: *Smutsia gigantea*

This species seems to still be fairly widespread in Guinea but at low densities.

Felidae

Leopard: *Panthero pardus pardus*

Listed as Appendix I (CITES), leopards are fairly widespread in Guinea. They are often hunted however, because they are a pest to livestock and their pelts can bring a great deal of money. Signs of leopard were observed during the present study at several locations. A cow was seen in Dalaba that had recently been attacked by a leopard. Moore (1986) reported leopard to occur in Mali near Baffing near the Guinea border at low densities

Chat doré: *Felis aurata*

This species is listed as "rare and/or vulnerale" (IUCN). This picture is often confused with other cats and therefore it is uncertain how reliable the interviews were for identifying the presence or absence of golden cats.

Canidae

Wild Dog: *Lycaon pictus manguensis*

Wild Dogs are listed as "Vulnerable" (IUCN). In many areas, hunters recognise this species as having occurred within their lifetime but report them to be now extinct. They are said to still exist in Gaoual, Mali, Koubia, Kankan, Mandiana, Siguiri, Faranah, Boke and Boffa and Forecariah. Moore reported them near the Guinea border in Mali and this species occurs in southern Senegal (Dupuy and Verschuren, 1978).

Galagonidae

Senegal galago: *Galago senegalensis*

Galagos are thought to be widespread throughout Guinea and were observed during the present study, although the species could not be determined.

Loridae

Bosmans Potto (*Periodictis potto*)

Hunters reported pottos to exist but it is uncertain if they were being confused with other species. Pottos were never directly observed.

Hominidae

Western Chimpanzee: (*Pan troglodytes verus*)

There are several species of large mammal not listed as integrally protected in Guinea but whose status should perhaps be reviewed. These are as follows:

Diana Monkey: *Cercopithecus diana*

Diana monkeys are listed in Class B (African Convention), in Appendix I (CITES) and as "Vulnerable" (IUCN). The only place that Diana monkeys were said to exist was in the Forêt Classée of Dieke in Nzérékoré and in the Forêt Classée of Ziama in Macenta. This species was never directly observed although there was a possible audition in the Forêt Classée of Ziama in Macenta. Barnett *et al.* (1994) reported the presence of Diana monkeys from one area only in the Kounounkan forest in Forecariah.

Lesser spot nosed monkey: *Cercopithecus cephus petaurista buettikoferi*

Lesser spot-nosed monkeys were only found in a very few localities in Guinea. They were only observed once in the Forêt Classée of Saraboly in Forecariah.

Putty nosed monkey: *Cercopithecus nictitans nictitans*

Like the lesser spot-nosed monkeys, this species is only found in a a few areas of Guinea. It is said to be absent from the Kounounkan Forest, Guinea (Barnett *et al.*, 1994).

Colobidae

Western Red Colobus: *Pilicolobus badius temminckii*

The Western Red Colobus is listed in Class B (African Convention), Appendix II (CITES) and as Vulnerable (IUCN). It is found only in the Gambia, Senegal, Guinea-Bissau and "north-west Guinea" (Gippoliti and Dell'Omo, 1996). During the present study, this species was reported to be present in several locations in Guinée Maritime but was only observed twice: in Tanene (Boké) and Madina Woula (Kindia).

Gippoliti and Dell'Omo observed this species in Guinea Bissau and say that "this is the "only area in which sympatry and polyspecific association between *Procolobus badius temminckii* and *Colobus polykomos* has been documented. In the present study however, polyspecific associations were also observed between these two species. Western Red Colobus are said to be absent from the Kounounkan Forest, Guinea (Barnett *et al.*, 1994)

Western Pied Colobus: *Colobus polykomos polykomos*

The black and white colobus is listed as "Vulnerable" (IUCN). This species seemed to only occur where there were large areas of either gallery forests or dense dry or humid forests. This species was observed in Timbi Madina and Sangarea (Pita), Ouré Kaba (Mamou), Madina Woula (Kindia) and Tormelin (Fria). The Western Pied Colobus is said to be present in the

Kounounkan Forest, Guinea (Barnett *et al.*, 1994).

Hyaenidae

Hyenas: *Hyaena hyaena* and *Crocuta crocuta*

Hyenas are said to be extinct in many areas of Guinea. Hunters say that veterinarians give them poison to eliminate them because hyenas kill their livestock. They still do exist in Gongoret (Mamou), Forêt Classée N'Dama (Koundara), Baranama (Kankan). Two areas where they were reported by hunters to be particularly abundant is Kansagni (Tougue) and in Saramoussaya (Mamou). Hunters report the spotted hyena to occur in most of Guinea and the striped hyena to occur in Siguiri and Mandiana but this was not confirmed.

Felidae

Lion: *Panthero leo*

Lions still exist in several areas in Guinea. In Balaki (Mali) Koumbia (Gaoual), Ghada Woundou (Koubia) and Niagassola (Siguiri) lions are said to be abundant. In most areas, however, hunters report that there are one or two lions who migrate into the area from time to time and then move on. There is a village in Niagassola where many people have lions as their totem. They say that lions rarely kill their livestock. If a lion becomes a pest, they will kill it but otherwise they say that they live in harmony. Lions are said to occur in Mali near Baffing (Moore, 1986) at low densities as well as in the Niokolo-Koba National Park, near the Guinea border.

Hippopotamindae

Pygmy hippo: *Hexoprtoodon liberiensis*

Pygmy hippos are listed as "Critically Endangered" (IUCN) and in Appendix II (CITES). When shown pictures of the pygmy hippo (*Hexoprotodon*) and the Hippo (*Hippopotamus*) , hunters often say that both species exist but this may be because the *Hexoprotodon* picture resembles a juvenile *Hippopotamus*. One way of distinguishing whether they exist was if they were referred to with different local names. Pygmy hippos were reported to exist in Madina Woula in Kindia and in the Forêt Classée de Ziama in Macenta.

Tragulidae

Aquatic chevrotin: *Hyemoschus aquaticus*

According to hunters, this species is fairly widespread throughout Guinea. Tracks were observed in the Forêt Classée of Ziama in Macenta and a dead animal was seen being sold for meat at the side of the road in Kindia.

Bovidae

Bohor reedbuck: *Redunca redunca*

This species is becoming very rare in Guinea but can still be found in certain dry savanna

woodland areas of Guinea.

Roan antelope: *Hippotragus equinus koba*

Although locally common in some areas, this species is already becoming extinct in many areas in Guinea.

Oribi: *Ourebia ourebi*

This species is said by the hunters interviewed to exist only in Niagassola in Siguiri.

Zebra duiker: *Cephalophus zebra*

Hunters reported this species in a surprisingly diverse number of locations. A photograph of a zebra duiker killed for bush meat was seen in the Forêt Classée of Ziama.

Western Hartebeast: *Alcelaphus buselaphus major*

This species was reported only to occur in dry savanna areas in Mali, Boke, Siguiri, Mandiana and Kankan. Droppings and horns were observed in several locations but in many areas this species was already reported to be extinct. Populations may be locally common but the species is rare in Guinea as a nation. Moore (1986) reported seeing signs of this species near the Guinea border in Mali.

Jentkins duiker: *Cephalophus jentinki*

Jentkin's duikers are listed as "Endangered" (IUCN). This species was reported to occur only in the Forêt Classée of Ziama and in Goueke in Nzérékoré and Wondé Kenema in Guekedou. Given that the design of this species is very characteristic, it seems highly probable that the hunters are correct.

Cobe de Buffon: *Kobus kob kob*

Although this species may be locally common, it is rare in Guinea as a nation and has already become extinct in many localities.

Giraffe: *Giraffa camelopardalis peralta*

Giraffe were thought to be extinct from Guinea for a long time. It is possible, however, that there may be a small group that migrate into Guinea near the border with Mali in the Préfecture of Siguiri in the Sous-Préfecture of Niagassola. Several hunters in other areas of Guinea had mentioned that giraffe still exist here. Nearly every hunter or even farmers we asked in the Prefecture of Siguiri said that an animal with a very long neck that fed on leaves high up in trees did exist near the frontier with Mali. They said that they were often in groups but there was such a large space between individuals that you might mistake them for being solitary. Because we were nearing the end of the survey, there was not time to try to find them and therefore it is still uncertain whether or not giraffes exist. This would definitely be worth a reconnaissance survey in this area. Giraffes are believed to have become exinct in this century in Niokolo Koba Park (Baldwin *et al.*, 1982).

DISCUSSION

DISCUSSION

CHIMPANZEE DENSITY

Results from this study found the mean density in chimpanzee habitats (including closed dry and humid forests, gallery forests, clear forests and wooded savanna) to be **0.24** (0.16-0.34) for the whole of Guinea. Multiplied by estimated forest cover for Guinea of 76,879 km2, this means that there are approximately 18,450 (**12,300**-26,139) chimpanzees in the whole nation. Results from questionnaires, when the Chefs de Sections estimated numbers, gave between **11,949** and 23,123 chimpanzees in Guinée. Result from the questionnaires, extrapolating from the number of locations given by Chefs de Cantonnements gave **12,120** chimpanzee in the whole country. All these methods gave similar results. For conservation purposes, however, it is best to be conservative and the lower range should be used. ***Results from this study show therefore, that there are at least 12,000 chimpanzees in the Republic of Guinea. The results show that Guinea provides home to the largest population of the most endangered sub-species of chimpanzee Pan troglodytes verus and should therefore be targeted for future conservation efforts.***

COMPARISON WITH OTHER STUDIES

Part of the reason that the number of chimpanzees in Guinea has been underestimated, is the misunderstanding that the estimate of 12,500 of de Bournonville (1967) is for the whole territory of Guinea. This number, in fact represents de Bournonville's (1967) estimate for only the area of Guinea he covered during his study (which includes Guinea Maritime and part of the Fouta Djallon). Therefore, when we consider that de Bournonville estimated 12,500 chimpanzees for only two of the four regions of of Guinea in 1967, the estimate for 1997 of 12,000 chimpanzees for the whole country seems more realistic.

The estimate from the present study is much larger than the previous estimate of Sugiyama and Soumah (1988). Sugiyama and Soumah's (1988) study was based on questionnaires and some personal observations. They state that their study was "the first and preliminary effort at a nationwide survey, which should be expanded to include the entire chimpanzee distribution range and should be conducted periodically employing stricter techniques."

Sugiyama and Soumah (1988) estimate between 1,420-6,625 chimpanzees in the country. Several of the Préfectures in their study had question marks because it was not certain at that time whether chimpanzees existed in the Préfecture. These Préfectures therefore did not figure in the overall estimate. The present study has shown that there are many communities of chimpanzees living in some of these regions.

For example, in Sugiyama and Soumah's (1988) 1,420 estimate, they have not included any chimpanzees from the Préfectures of Dubréka, Lélouma, Faranah, Kissidougou and Guékedou. The present study has confirmed the presence of chimpanzees (by observation, audition, or nests) in all of these Préfectures, including 1 chimpanzee community in Dubréka, 3 communities in Lélouma, 3 communities in Faranah, 1 community in Kissidougou and 1 community in Guékedou. Questionnaires from the present study give 71 locations for chimpanzees in these areas.

In other areas, Sugiyama and Soumah (1988) have recorded very low numbers of chimpanzees where the present study has confirmed that there are many more. Labé, for example, is marked with a question mark for the 6,625 estimate and 30 chimpanzees for the 1,420 estimate by Sugiyama and Soumah (1988). During the present study, I camped less than 100m from a group of chimpanzees in a gallery forest in Dalen (Labé). In the morning, we discovered 37 fresh nests with urine and faeces underneath, indicating that there are at least 37 chimpanzees in this area. Similarly, 12 fresh nests were discovered in Noussi (Labé). Nests were also recorded during the census in the Sous-Préfectures of Diari, Daralabé and Tountouroun. Questionnaires indicate chimpanzees to also exist in the Sous-Préfectures of Dionfo, Kalan, Kouramangui, Popodara and 23 specific locations are given. **Table 17** compares results from Sugiyama and Soumah (1988) and results from questionnaires from the present study.

Chimpanzee densities in the present study are fairly low compared to densities of chimpanzees in other studies (**Table 18**). This is probably because this density includes all habitats where chimpanzees could *potentially* live and many of the estimates in the literature are from protected forests. Some of the areas visited in Guinea, had very high densities of chimpanzees indeed. In many of the areas where chimpanzees had been confined to small mountains and yet where they were not hunted, almost every tree on the mountain supported a chimpanzee nest (eg. Kourou, Fouta Djallon). On transect 21 in Koubia in Gaoual, there were 90 nests observed in a 100m x 5,200m strip (0.52km2).

Baldwin *et al.* (1982) studied a community of chimpanxees in Mt.Assirik, (near the border between Senegal and Guinea) with one of the lowest densities and largest home ranges of all populations of chimpanzees studied so far. Areas in the hotter and drier marginal habitats, such as those found in many areas of Guinea, may necessitate larger home ranges and low densities of chimpanzees because of limiting resources in these types of habitats.

Similar to the present study, Marchesi *et al.* (1995) also found more chimpanzees than had originally been expected, during their nationwide survey of chimpanzees in Côte D'Ivoire. They estimated there to be 11,676±1,168 chimpanzees, using data from nest counts. This is greater than the estimate of less than 1,000 by Teleki (1989). ***The probability that the overall population of Pan troglodytes verus is higher than previously thought is good news, populaation estimates must be used with caution: The future for the long term survival of chimpanzees is still extremely bleak.***

In Côte D'Ivoire, Marchesi *et al.*, (1995) emphasise that there are only three National Parks in the country that may have chimpanzee populations large enough to be viable. The rest of the chimpanzees are found in scattered and small isolated communities and many are already threatened. Similarly, in many areas of Guinea, chimpanzee populations are rapidly becoming extinct and in those areas where they do exist, populations are often confined to small patches of forest and especially mountains that have not yet been cultivated. Areas of Guinea where the local people *do not* hunt or eat chimpanzees, are now being exploited by people who *do* eat chimpanzees. The pet trade is flourishing and now that Guinea has opened its borders, many expatriates (the main buyers of baby chimpanzees) are coming to work in Guinea, providing a bigger market for hunters. ***The stability of the remaining population of chimpanzees in Guinea is extremely fragile. Chimpanzees are still very much in danger of extinction within the nation.***

Table 17. Comparison between estimates of chimpanzee numbers from Sugiyama and Soumah (1988) and the present study, for each Préfecture in Guinea

	Préfecture	*Sugiyama and Soumah (1988)*			*This study*	
		Present (DEF and DRST)	Present Authors	Past (DEF and DRST)	Present Minimum	Present Maximum
FOUTA DJALLON	Dalaba	100	50	400	779	1161
FOUTA DJALLON	Gaoual	750	120	1300	963	1536
FOUTA DJALLON	Koundara	?	60	?	98	214
FOUTA DJALLON	Labe	?	30	?	363	639
FOUTA DJALLON	Lelouma	?		?	427	777
FOUTA DJALLON	Mali	950	100	1100	625	1032
FOUTA DJALLON	Mamou	550	65	800	1418	2996
FOUTA DJALLON	Pita	100	50	200	542	774
FOUTA DJALLON	Tougue	?	30	?	680	1233
GUINEE FORESTIERE	Beyla	400	50	750	0	0
GUINEE FORESTIERE	Guekedou	?		?	?	?
GUINEE FORESTIERE	Kissidougou	?		?	?	?
GUINEE FORESTIERE	Lola	50	60	400	91	162
GUINEE FORESTIERE	Macenta	?	50	?	?	?
GUINEE FORESTIERE	Nzerekore	200	50	600	177	269
GUINEE FORESTIERE	Yomou	?	50	?	209	307
GUINEE MARITIME	Boffa	400	60	900	121	545
GUINEE MARITIME	Boké	400	80	1150	297	606
GUINEE MARITIME	Conakry	?	0	?	0	0
GUINEE MARITIME	Coyah	?	40	?	?	?
GUINEE MARITIME	Dubreka	?		?	185	201
GUINEE MARITIME	Forecariah	250	60	600	171	242
GUINEE MARITIME	Fria	100	45	150	132	269
GUINEE MARITIME	Kindia	600	75	1100	302	478
GUINEE MARITIME	Telemele	150	50	200	2478	2929
HAUTE GUINEE	Dabola	60	25	90	304	560
HAUTE GUINEE	Dinguiraye	500	70	1000	449	4237
HAUTE GUINEE	Faranah	?		?	348	664
HAUTE GUINEE	Kankan	200	30	600	98	177
HAUTE GUINEE	Kerouane	90	30	900	82	163
HAUTE GUINEE	Koubia	?	30	?	367	506
HAUTE GUINEE	Kouroussa	350	30	900	178	304
HAUTE GUINEE	Mandiana	?		?	0	0
HAUTE GUINEE	Siguiri	425	30	800	65	142
TOTAL		**6625**	**1420**	**13940**	**11949**	**23123**

Table 18. Estimates of Chimpanzee density in other areas

COUNTRY	SITE	SOURCE	DENSITY chimpanzee/km2
Tanzania	Mahale Mountains	Nishida (1990)	1.4
Tanzania	Gombe	Wrangham (1975)	2.5
Tanzania	Gombe	Goodall (1968)	1.4
Tanzania	Kasoge	Nishida and Kawanaka (1972)	1.1-2.0
Tanzania	Kasakati Basin	Suzuki (1969)	0.5-.75
Tanzania	Kasakati Basin	Izawa (1970)	0.3-0.4
Tanzania	Filabanga	Kano (1971)	0.2
Tanzania	Ugalla and	Kano (1972)	0.08-0.12
Côte D'Ivoire	Tai	Marchesi et al. (1995)	3.00
Uganda	Budongo Forest	Sugiyama (1969)	6.70
Uganda	Budongo Forest	Suzuki (1971)	6.00
Uganda	Budongo Forest	Reynolds and Reynolds (1965)	3.90
Uganda	Budongo Forest	Plumtre and Reynolds (1996)	1.8-2.5
Uganda	Kibale	Chapman and Wrangham (1993)	2.8-5.3
Uganda	Kibale	Ghiglieri (1984)	1.4-2.4
Uganda	Kalinzu	Hashimoto (1995)	2.8-4.0
Gabon	Lope	Tutin and Fernandez (1984)	0.17-1.1
Senegal	Mt.Assirik	Baldwin et al. (1982)	0.09
Guinea	Bossou	Sugiyama and Koman (1979)	4.40
Guinea	Kanka Sili	Albrecht and Dunnett (1971)	10.00

TRANSECT METHODOLOGY

Many difficulties were encountered in the present study because their was little background information available for Guinea, no up to date maps for the whole country and especially no up to date and accurate vegetation map to the scale that was needed for choosing the location of transects. Extremely detailed NASA maps are now available for the whole of West Africa. ***It is recommended that the Projet de Conservation des Chimpanzés obtains these maps both for future transect works and also to recalculate more accurately the surface area of different vegetation categories in Guinea.***

The program DISTANCE was used in the present study to calculate post hoc, the strip width of the transect and in order to calculate the number of nests missed at greater distances from the transect line. It is believed that this method is more accurate than other surveys of chimpanzee populations in which a set strip width is used, assuming no nests are missed or a certain percent of nests are missed (eg. Ghiglieri, 1979; Marchesi *et al.*, 1995). There are however, many factors which can be difficult to estimate accurately (especially nest decay rate) which can have a large effect on final numbers. A new method has been tested by Plumtre and Reynolds (1995) and Hashimoto (1995) and found to be more accurate than standing crop nest count (SCNC) as used in the present study. They call this method the marked nest count (MNC). It involves walking a transect line and marking all nests observed from the transect line. The transect is then walked a second time and the number of new nests noted. The number of nest-building chimpanzees/km2 is then calculated by dividing the total number of newly built nests by the number of interval days divided by the area sampled. This method avoids the necessity of calculating nest duration and therefore can greatly reduce inaccuracies in the results.

It is recommended that the Projet de Conservation des Chimpanzés investigate the use of the marked nest count method (MNC) for future censuses of chimpanzees, especially if accurate data on nest duration is still not available.

Nest Decay Rate

The length of time a nest remains visible in the present study (221±22 days) is much higher than that observed in other studies (**Table 19**). Nests in the present study were monitored in the Fouta Djallon where most of the nests on the transects were observed. It is not surprising that nest duration here is longer than in the humid tropical forests, for example in Gabon, where rainfall and the number of months of rain is greater. Long lasting nests may be a phenomenon of West African dry habitats and many such nests were observed in Senegal (Tutin personal communications). Plumtre and Reynolds (1996) found nest decay rate to be significantly lower in the dry season than in the rainy season, but Wrogemann (1992) in Gabon found that nest decay in dry season was slower than in the wet.

Nest duration is a factor in the equation that could greatly influence the overall estimate of chimpanzees in Guinea and the calculation of this number should not be taken lightly. The number of nests monitored in the present study is small (n=21) due to logistical constraints encountered during this project. Plumtre and Reynolds (1996) observed that nest decay rate was exponential and that decay rate changed little after 80% of the nests had decayed. This indicates that the slowest nests would not need to be monitored to complete decay. In the present study however, only 67% of the nests being monitored had completely decayed thus the duration of nests is probably slightly larger than what was calculated for the present report.

One of the reasons for such a discrepancy in nest decay rates is that there are differences between the cut off point beyond which researchers consider a nest still exists. For example, Plumtre and Reynolds (1996) did not consider nests that had lost all of their leaves even if the dead twigs were present. White (personal communications) recommends following nests through to the very end and using all nests in order to avoid subjective cut offs. During the present study, the latter method was used.

It is recommended that the Projet de Conservation des Chimpanzés should monitor these nests to their complete disappearance and then recalculate the overall estimate of chimp numbers in Guinea determined in this present report.

It is recommended that the Projet de Conservation des Chimpanzés should monitor further nests to obtain a larger sample size. This should be done in different locations and in tree species chosen to be representative of the tree species on the transects.

Finally, it is recommended that the Projet de Conservation des Chimpanzés should monitor nests in palm trees (Elaeis guineensis) so that estimates can be recalculated using data from transect 5 from Guinée Maritime in which all nests on this transect were constructed in palm trees.

Table 19. Mean nest duration found in previous studies

COUNTRY	AUTHOR	NEST DURATION
GABON	Tutin and Fernandez (1983)	113.6±5days(n=49,range 35-151)
UGANDA	Ghiglieri (1979)	110.8 days (n=29)
UGANDA	Plumtre and Reynolds (1995)	45.9 days (n=96)
UGANDA	Skoropa (1988)	144 days
CÔTE d'IVOIRE	Marchesi et al. (1995)	73.3±4 (n=26, range 7-290)

REGIONAL DISTRIBUTION AND DENSITY OF CHIMPANZEES IN GUINEA

As shown in the *Study Site*, each region of Guinea is very different, in terms of its geography, vegetation, climate and the culture of the people living there. The following is a brief description of chimpanzee density and distribution for each of the four regions of Guinea:

Fouta Djallon

Chimpanzee density is the highest in the Fouta Djallon. Even though human population density is highest here, chimpanzees are not generally hunted or eaten. It is also an extremely mountainous area and as a result there are many areas which are steep or inaccessible and therefore have not yet been cultivated. It is on these mountains where many populations of chimpanzees are found. Density of chimpanzees is high and perhaps at unnatural densities in concentrated, isolated pockets in Mamou, Dalaba, Labé, Pita, Tougue and Lelouma. Density is more even and at high but more natural levels in Gaoaul, Mali and Koubia. Density of chimpanzees is thought to decrease in Koundara further to the north towards Parc de Badiar.

There are still many isolated forests left in the Fouta but much of the land is degraded and either agricultural or fallow fields.

Guinée Maritime

Chimpanzee density is the second highest in Guinée Maritime of all regions in Guinea. In the coastal and southern areas of Guinée Maritime, people sometimes eat chimpanzees, but this becomes rarer in areas bordering the Fouta Djallon. Chimpanzee density is high in isolated pockets in Kindia. Chimpanzees are becoming rare in Coyah, Forecariah, Dubreka, Fria and Boffa. In Boké there is still a lot of woodland and open forest left and chimpanzees are at high densities, especially in low populated areas. Agricultural practices are fairly high everywhere and little forest remains. The land is extremely degraded in most parts. Often the only trees left are palm trees, kept to cultivate the palm nuts for palm oil. Perhaps because they have been forced to do so, chimpanzees have started making nests almost exclusively in palm trees in the west of this region.

Haute Guinée

Even though human population density is the lowest in Guinea in this region, chimpanzee density is generally low. This is partially due to the fact that there is less closed forest. Agricultural activities are also high and there are very few forest areas left. Bush fires are also an enormous problem in this area.

Chimpanzees are often eaten and hunting is also probably responsible for the low densities of chimpanzees where there are still suitable habitats. Densities are still high in isolated areas of Dabola and perhaps western Dinguiraye. Chimpanzees exist at low densities in Faranah and eastern Dinguiraye and even lower densities in isolated areas in Kerouane and Kouroussa. Densities may be higher in Siguiri near the frontier with Mali in the Sous-Préfecture of Niagassola, but this was not confirmed. It is not certain whether chimpanzees still exist in Kankan and they probably do not exist in Mandiana.

Guinée Forestière

Overall chimpanzee density in this area is low and the number of localities where chimpanzees can be found are few. This is mostly due to the fact that chimpanzees are often hunted here for meat. Chimpanzees still exist in several isolated communities but only in a few of these is there any chance for their long term survival. Human population density is high and much land has been taken over by mining as well as coffee and cocoa production.

In summary, it is in the Fouta Djallon, where the greatest population of chimpanzees can be found, where there is still suitable habitat and where chimpanzees are naturally protected because people do not eat chimpanzees. The Fouta Djallon therefore, is where there is greatest hope for the long term survival of chimpanzees and it is suggested that the Fouta should be the main focus for future conservation efforts for chimpanzees.

THREATS TO THE SURVIVAL OF CHIMPANZEES IN GUINEA

Although it is good news that there are more chimpanzees in Guinea than previously thought, the conservation problems threatening the survival chimpanzees within this country are enormous.

I. HUNTING CHIMPANZEES FOR MEAT

Evidence from questionnaires and hunter interviews shows that of all mammals in Guinea, chimpanzees are one of the least hunted. Many reasons are given as to why chimpanzees are not usually hunted, including traditional beliefs, religious and national laws, as well as emotional reactions to their similarity to human beings. Because chimpanzees are slow reproducers (interbirth interval isranges from 4.4 years at Bossou (Sugiyama, 1989) to 6.0 years at Mahale (Nishida *et al.*, 1990)) even a small amount of hunting can have a catastrophic effect on chimpanzee numbers. Even though a large percent of the population of Guinea are Muslim, many people do still eat chimpanzee meat. This is especially prevalent in Guinée Forestière, part of Haute Guinée and Guinée Maritime.

Although in much of Guinée Maritime and the Fouta Djallon, people are Muslim and do not generally eat chimpanzees, these traditions are rapidly changing. Even if there is little hunting in the Fouta Djallon, people from the surrounding areas where there is demand for chimp meat are encroaching in at the borders of the Fouta Djallon. Hunters reported selling chimpanzee meat to trucks from Guinée Forestière in Dinguiraye and Mamou, prefectures which lie at the border of the Fouta Djallon.

Future conservation efforts should therefore target a buffer zone around the Fouta Djallon.

In Guinée Forestière, there is a special problem facing chimpanzees, given, the huge influx of refugees (See Study Site: The Republic of Guinea). The extremely high density of the human population in this area, their search for animal protein, and the fact that many of the remaining forests are fragmented and therefore easily accessible, has meant that much of the remaining population of chimpanzees in this area has been wiped out. ***It is difficult dealing with conservation issues when such humanitarian crises exist but if chimpanzees are to be saved in these areas, hunting must be better controlled.***

II. HUNTING CHIMPANZEES FOR PETS

Observations during the census indicate that the hunting of chimpanzees for the pet trade presents an enormous problems in Guinea. The two solutions to this problem are:

(1) education of both suppliers and merchants that it is illegal to hunt chimpanzees, and why,
(2) stricter enforcement of the law (i.e. confiscating babies and giving fines) when it is broken.

Two of the main objectives already written into the proposal of the *Projet de Conservation*

des Chimpanzés are (1) a public awareness campaign and (2) providing a solution for confiscated chimpanzees so that the law can be enforced.

Public Awareness Campaign

Interviews with hunters show that the main people to whom chimpanzees are sold and therefore who should be targeted for a public awareness campaign are as follows:

(1) ***Expatriates*:**

Hunters most often report that chimpanzees are being sold to "white people". Expatriates are often targeted by hunters because they are often relatively well off. Sometimes expatriates will buy an infant chimpanzee because they feel sorry for it and believe that they can help it. They do not realise however, that their money is contributing towards the commerce of chimpanzees. They also do not realise that chimpanzees can live for 50 years. Often when their contract has terminated, they have to leave the country and do not know what to do with their chimpanzee. The DNFF does not have the funds to take care of the chimpanzees and thus a huge problem is created. Expatriates should therefore then be targeted in a public awareness campaign by concentrating resources on airports, embassies, projects, supermarkets, restaurants, cafés and hotels.

CIE des Bauxites de Guinée (CBG) is an organisation that brings one of the largest populations of expatriates to Guinea. Several hunters reported selling their chimpanzees here for exorbitant prices and therefore it should be a main target for education.

(2) *Gendarmes*: Hunters also often reported that gendarmesbuy both babies and chimpanzee meat. Army camps therefore should also be a target for conservation education campaigns.

(3) *Government officials at the Préfectural and Sous-Préfectoral level*:

Once again, it is often these people with who have enough money to pay for a baby chimpanzee. Several hunters reported selling babies to the Préfets in the Préfecture capitols. Many of the Préfets were already met during the present census and the Project goals explained to them. One of the greatest problems here is the high turnover rate and shuffling of positions that often occurs in the administration, so that conservation education would have to be an ongoing and continual process.

Tools that could be used for conservation education, include posters, pamphlets, billboards, radio and television programmes. Music and dance plays a large part in Guinean culture and songs created about chimpanzees by artists in different languages could play a large part in disseminating information. Visits could be made in person to embassies and project headquarters. NGO's often have their own information network or even newsletters within the country that could be used. The *Projet de Conservation des Chimpanzés* could even work with organisations to incorporate information about chimpanzees into any introductory information expatriates receive before, or upon arriving in Guinea. Lectures could be given at the DNFF, Universities and cultural centres.

Rehabilitation of captive chimpanzees

Although the law forbids the capture of chimpanzees from the wild, it is presently difficult for the Direction Nationale des Forêts et de la Faune to confiscate chimpanzees even when they know that the chimpanzees were obtained illegally. The DNFF do not have the means of looking after the chimpanzees, especially long term. If it was possible to rehabilitate captive chimpanzees in Guinea, this would allow law enforcement to increase since the confiscated chimpanzees could be returned to the wild. Greater law enforcement would hopefully mean a decrease in the capture of baby chimpanzees for sale.

Several previous attempts have been made to reintroduce chimpanzees to the wild (eg. Borner, 1985; Brewer, 1978; Hannah and McGrew, 1991; Hladik, 1973; Carter, 1981). Learning from the successes and failures of these projects, the following criteria should be used in selecting a release site.

(1) An area should be sought were no chimpanzees exist already. Chimpanzees are highly territorial and have been known to attack newcomers. For example, although Brewer (1978) successfully introduced chimpanzees into Niokolo-Koba National Park in Senegal, resident chimpanzees started to attack the newcomers and the chimpanzees had to be eventually withdrawn from the area

(2) An area should be sought with suitable habitat. Information is available on the diet of chimpanzees in West Africa, and these species' lists, combined with data collected during the present survey, can serve as a guide as to the trees that should be available in order to allow the chimpanzee population to be self-sufficient. The area must have suitable amount of cover and trees for making sleeping nests and must have fresh water available all year round.

(3) An area must be found where the chimpanzees will be protected. This criterion is self evident.

(4) The area should not be close to human settlement. Since these chimpanzees will have had contact with humans, they will no longer be fearful of humans. Adult males, especially, can be extremely aggressive and dangerous. If close to human habitation, the chimpanzees may also become pests by raiding and destroying plantations.

One of the goals of the survey component of the Projet de Conservation des Chimpanzés was to identify such a site. Unfortunately, a site conforming to the above criteria was not found. ***The following sites were the closest approximation to a possible release site but further investigation needs to be done:***

An island was located in Forecariah off the coast of Guinea, in the Sous-Préfecture of Benti. This island was said to be haunted with devils. It was said to be very small but to have a little forest cover and fresh water.

An island off the coast of Boké, called "Ile Kandiff" was recommended by an old man who used to live near the island. He said that the island was joined to Guinea Bissau at low tide however.

Two adjoining classified forests called Ouladin (1,500 ha) and Selly-Koro (2,300 ha) were visited in Kissidougou where chimpanzees no longer exist although there is plenty of suitable habitat remaining. It is thought that chimpanzees probably no longer exist here because of hunting, therefore a large awareness campaign would be necessary before any chimpanzees

could be introduced here.

The other alternative is to release chimpanzees into an area where there are already chimpanzees. Releasing female chimpanzee would probably have more success than males. Proper medical examinations would also be vital before releasing any individuals into an existing wild population to avoid the risks of disease.

Placing an orphan into a wild population has recently been attempted by Treves and Naughton-Treves (1997) with initial success although the chimpanzee did not remain in the wild. A captive, wild-born 4-6 year old female chimpanzee (*Pan troglodytes schweinfurthii*) was temporarily released into Kibale National Park, Uganda. She received more affiliative than aggressive behaviour from the other chimpanzees. Unfortunately she spent less and less time with wild chimps and went closer to human inhabitation. The attempt was terminated after 2 months. hey were concerned because "A chimpanzee moving between human habitations and her wild community could serve as a disease vector". In addition, as an adult, Nas's fearlessness could threaten children guarding crops.

Another possible lternative is to investigate islands in Guinea Bissau as possible release sites. The implications of making exceptions for chimpanzees to cross international boundaries and therefore providing further loopholes needs to be seriously considered.

III. DESTRUCTION OF CHIMPANZEE HABITAT

Probably the most important factor affecting the survival of chimpanzees in Guinea is the loss of habitat. In Guinea, which is one of the poorest countries in West Africa with thousands of refugees from neighbouring war torn countries, it is often difficult to address such issues as conservation of a species when human needs are so great.

Chimpanzee communities are based on fluid parties of individuals that are forever changing in size and structure. It is the females who transfer between groups. Because many of the communities of chimpanzees in Guinea are so isolated, this transfer can no longer occur. Interbreeding may not be the most immediate concern, but should be considered when planning for the long term conservation of chimpanzees in Guinea. Not only could isolationism threaten the long term gene pool of chimpanzees but it also may affect the immediate social structure and interactions within the group. ***It is suggested therefore that wherever possible corridors of forest be created between chimpanzee habitats. These could follow the course of rivers, which would have additional benefit of protecting water sources from erosion.***

On the other hand, chimpanzees at Bossou live on a small isolated forest patch where they have been studied by Sugiyama and his colleagues since 1976. Despite the fact that cultivated fields are scattered around the home-range of the Bossou group and the nearest community of chimpanzees is 5 to 6km away, individuals have been suspected to migrate between the groups (Sugiyama *et al.* 1993b), suggesting that chimpanzees do find means of transfer even when extremely isolated. The population at Bossou appears to have remained healthy since studies began.

Hunters report increased frequency of crop raiding by chimpanzees, especially during periods of fruit scarcity. This may be evidence that habitats are becomming too small so that chimpanzees are forced to supplement their diet with cultivated food. However, it may also

merely be a result of the forced interactions between chimpanzees and humans due to the encroachment of the human population into chimpanzee habitats.

Areas of protected forests do exist in Guinea. However, some of these are not very important in terms of areas of high biodiversity, high density of mammals, or protecting endangered species whereas other areas which are not protected are. In addition, encroachment from human civilisation have made some of these areas almost unrecognisable as a classified area. In many protected areas there are signs of poaching (Forêt Classée of Dieke, Goueke), removal of trees for firewood (Foret Classée of Koumba), or blatant slash and burning of the forest for cultivation (Forêt Classée of Noussi). It is believed that ***the Forêt Classée system in Guinea should be reviewed, prioritising areas for conservation.***

It truly seems one of the only hopes for preserving, not only chimpanzees, but other wildlife and biodiversity in Guinea in general, is to target the most important areas and concentrate on protecting these last remaining habitats.

PRIORITISED LIST OF AREAS PROPOSED FOR FURTHER RESEARCH AND/OR PROTECTIVE STATUS:

The following is a list of areas visited that were thought to be particularly important for further research and/or protective status. The list is divided into five categories:

I. Areas with healthy populations of chimpanzees and intact forest ecosystems
II. Other areas of particular interest also thought to have healthy populations of chimpanzees.
III. Areas with high density of chimpanzees but degraded forest or forest fragments and human/chimp conflicts
IV. Areas with high density of chimpanzees but where chimpanzees are confined to a mountain and surrounded in human activities
V.Areas not visited but thought to contain viable chimpanzees populations; i.e. needing further investigation

I. Areas with healthy populations of chimpanzees and intact forest ecosystems

These areas are thought to be the most important for conservation of chimpanzees.

Priority Area Number 1: Forêt Classée Fello Digue, (2,925 ha classified since 1952) GAOUAL.

This area is right in the heart of the Fouta Djallon. People do not hunt chimpanzees for food or for pets here. There is a large area of forest, already classified and theoretically protected since 1952. Human population density is low. Chimpanzee density is high. The biodiversity is high and many large mammals are said to migrate through this area to and from the Parc de Badiar. The previous Chef de Cantonnement of this area set up a group of hunters who were monitoring chimp populations while waiting for the Projet de Conservation des Chimpanzés to arrive. Further research on chimpanzees or a project with hunter-monitors (see below) would be relatively easy to set up. There are also other areas around this forêt classée that may also be important for chimpanzees and other wildlife. It should be investigated whether it may be possible to extend the forêt classée. The area is accessible from the "route national" between

Gaoual and Labé. No other projects presently exist here. Bush fires seem to be extensive in this area and should be one of the problems addressed. The area was once surveyed for diamonds, but the findings of this survey are unknown.

Priority Number 2: Forêt Classée de Ziama (112,300 ha classified since 1943) and Dieke (64,000 ha classified since 1945), MACENTA

Forêt Classée of Ziama is the largest forêt classée in Guinea. These two forest make up sone of the last areas with continuous tropical rain forest. Despite the huge refugee problem in Guinée Forestière, the vegetation in these forests have survived relatively intact. Biodiversity is extremely high and many rare and endangered species are reported to exist here, including Diana monkeys, red and olive colobus, elephants and Pygmy hippos. Other species rarely found elsewhere in Guinea live here, including bongo. This area may one day have great touristic potential. Evidence of nut cracking behaviour was found in the classified forest of Dieke. This is an important area, therefore, for future scientific studies of chimpanzee culture.

Unfortunately hunting pressure is still extremely high. There are park guards but they rarely penetrate into the forest. A constant presence of a hunter monitor inside the forêt classée would be an excellent deterrent to poachers..

As far as chimpanzees are concerned, the hunters say that since hunting pressure is high, the chimpanzees usually stay in the remotest areas and are said to sleep in a valley between two steep mountains...an area that is difficult to access. Monitoring the chimpanzees here would therefore be difficult since the terrain is so mountainous. Fortunately, there is an intricate network of paths throughout the forest that could be used and these are well known by all the hunters. Difficulties monitoring chimpanzees may also be encountered due to the fact that since chimpanzees are hunted, they can be expected to be afraid of human presence and difficult to habituate (habituation would also be undesirable given the hunting pressure!!)

There is already a structure in place given the PGRR project which has taken over from PROGERFOR. There is an excellent Guinean botanists and a Guinean faunal expert and a village with numerous hunters at the entrance to the forest. There is a system of hunters already in place with a chief of hunters to whom all hunters must report. It would be interesting to study the structure of these groups of hunters.

Priority Number 3. Forêt Classée Nialama LELOUMA (10,000 ha classified in 1943)

Chimpanzees are abundant here and there is a fair expanse of suitable habitat still remaining. The *Projet de Gestion des Resources Naturales*, funded by USAID, works extensively in the Forêt Classée of Nialama, but few studies have been done on the fauna. There are some problems locally with chimpanzees raiding crops or stealing livestock which should be addressed.

An understanding of the chimpanzee's migrations and daily ranges in this area is essential for the development of a management plan, in order to avoid communities to become isolated or to isolate chimpanzees from key parts of their range. It is suspected that there is more than one community of chimpanzees in this area therefore corridors between these communities, such as gallery forests should be maintained so that migrations can still take place between communities.

This area is also possibly important for large ungulates. If well protected, it is possible that this area could also provide an important refuge for the migration of these species.

Priority Number 4. Forêt Classée Balayan and Sorouma DINGUIRAYE (24,520 ha classified since 1951)

The only forest visited in this area was Selouma, which is part of the mountain chain but not part of the classified forest. A reconnaissance survey would be needed to investigate the limits of the chimpanzee ranges. It is possible that Selouma should be made part of the classified forest.

Chimpanzees are somewhat naturally protected in this area because of the mountainous terrain. Chimpanzees are abundant here and are not generally hunted. People have started to have problems with chimpanzees in the area however, stealing calves, goats and sheep as well as crop raiding. There is ample territory for the chimpanzees, unlike in other areas where this occurs (eg. Koba) so it would be interesting to see at what times of year the chimpanzees do raid crops and if it is indeed related to food shortage. Because of the mountainous terrain monitoring the chimpanzees would be hard but not impossible. The chimpanzees are constantly present and can be heard everyday. They are not terrified of people since they are not hunted.

In certain areas of Dinguiraye, even if the local human populations (mostly Pular) don't believe in killing chimpanzees, people are starting to come from Guinée Forestière to offer money for chimpanzees, since they have exterminated them in their own Préfectures! This area lies at the frontier of differences in attitudes towards chimpanzees and would be an important area for chimp conservation to prevent the spread of hunting of chimpanzees into the Fouta Djallon. This area is very accessible by the *route national* between Mamou and Dinguiraye.

Priority Number 5. Proposed transfrontier classified forest near the Guinea Bissau border: BOKÉ

A transfrontier park has been proposed for this area but reconnaissance surveys are still needed to determine exact location and the limits of this park. Chimpanzee density is high on the Guinea side. Human population is low. In addition, chimpanzees show the extraordinary behaviour of making nests in palm trees in this area. This behaviour provides scope for scientific studies on chimpanzee culture in the future. Lions are said to exist in abundance in this area and there is also the possibility that elephant still live here. This is one of the few remaining places in Guinea where red colobus still exist.

Priority Number 6 Forêt Classée of Ghada Woundou (28,168 ha+ 9,400 ha) classified in 1952) KOUBIA

Chimpanzee density is very high in this area. Lions are also said to be abundant. There are still large areas of relatively intact forest here but further studies need to be done in order to determine the areas most important for chimpanzee conservation as this study only touched the very southern tip of the forest. This areas is extremely inaccessible which although may make it difficult for studies, may guarantee the long term survival of chimpanzee populations.

II. Other areas of particular interest also thought to have healthy populations of chimanzees.

Forêt Classée Sala (568 ha classified since 1948): LABE

This is one of the most beautiful sites I visited in Guinea and chimpanzees are abundant here. The actual area that is classified is small and this deserves investigation since it is an important site for protection of both fauna and flora and water. The site lies only an hours drive from Labé and 20km as the crow flies. Sala is a large river, especially in the rainy season and the chutes are spectacular. It is possible to swim under some of the chutes in the dry season. It is already a touristic site, and many come with the hope of seeing chimpanzees or baboons. There are black and white colobus, mona monkeys, baboons, patas, green monkeys and mangabeys here as well as chimpanzees. The hunter recognised the picture of a Diana monkey and said that they exist here, although this seems improbable.

According to the guardian of the forest, the chimpanzees movements are very seasonal and they depend highly on fruit of *Parinari excelsa*. This species of tree greatly determines their movements. The human population live in peace with the chimpanzees and I even saw a nest at the edge of the fence around the village, only 30m from a house! Tom Erdmann from USAID said that he has seen tree species here (eg *Tetrapleura tetraptra*) which are normally found in primary rainforest and believes this area to be one of the last relics of primary forest in Guinea. He also felt this forest extremely important to protect.

Little protection is in place right now and most people don't even know that part of the area is classified. The village has a guardian of the forest but tree cutting and hunting is still permitted. Chimpanzees are heard and seen here frequently and nests are abundant.

Forêt Classée Saraboly (850 ha since 1952) : FORECARIAH

This is a beautiful forest, though not extensive. There are a high number of species of primates, probably including red colobus. There is an extremely high density of chimpanzees. Chimpanzees supposedly migrate across to Sierra Leone. Chimpanzees exhibit interesting nesting behaviour here, nesting in palm trees. A forest guardian post was built at the edge of the forest, and two guards assigned to protect the forest full time. The guardians have supposedly not been paid for many years and the houses have been boarded up. This forest has great potential for ecotourism given its accessibility and close proximity to Conakry.

Forêt Classée Pinselli (13,000) and Forêt Classée Soya (8,400 ha) (Both classified since 1945).

Pinselli is very inaccessible but has a high density of chimpanzees. Hunting pressure on chimpanzees is not negligible. Elephants have been extinct here for about 20 years, but could return. This used to be an area extremely important for expatriate hunting large game. Chimpanzees are also found in forêt classée of Soyah which is very close to Pinselli. It might be a good idea to investigate if these areas could be joined into a much larger protected area.

Forêt Classée Mafou (52,400 ha classified since 1954)

It would be important to monitor these chimp populations to record information which may help with the rehabilitation programme. For example, data could be collected on wild chimp

foods so the rehabilitated chimpanzees could be encouraged to eat these foods. Knowing the wild chimpanzees ranging patterns could help in the case that Mafou may ever be the final release site for captive chimpanzees. It would be important to know at what time of year the local population frequents certain areas so as to either avoid or join with these populations. This area is also important for other wildlife, especially large ungulates.

III. Areas with high density of chimpanzees but degraded forest or forest fragments and human/chimp conflicts

These are areas where significant populations of wild chimpanzees still exist, but where urgent conservation measures are needed to ensure their long-term survival. They are also areas where studies of these fragmented populations may provide useful insights into how chimpanzees cope in such situations , giving insights into conservation measures that could be used throughout Guinea with similar populations.

Forêt Classée Gali LABE (1,500 ha classified since 1943) and Daralabé (375 ha classified since 1945) Non

There is a very high density of chimpanzees here. This area used to be a much larger forêt classée but the forest has been burnt and cultivated and now the chimpanzees are forced into a small area. Some say that the same population of chimpanzees travel to the forêt classée in Daralabé. I am not convinced of this but it deserves investigation. If it is true it would be important to reserve at least a corridor between these two areas in order to save this population of chimpanzees.

A young baby chimp skull was found here possibly killed from a bullet. The Chef de Cantonnement has been there a long time and is filled with energy and good ideas but is very isolated in his efforts. There is a desperate need for conservation efforts for chimpanzees here if this population is to be saved.

Koba: DALABA Non

Here there is very little suitable habitat left (only on the tops of the mountains). The chimp population is increasing because the chimpanzee are fleeing from Garafili dam workers hunting them and noise from heavy machinery. Chimpanzees raid crops here and steal livestock here but the local population still don't hunt them and people generally like them. I wouldn't be surprised if there are numerous intergroup conflicts and if chimpanzees are starving here. There is a desperate need for conservation efforts here and studies are needed to investigate what is happening when the chimpanzee communities are forced together.

Forêt Classée Haute Komba (1,300 ha, classified in 1944): LABE Non

Here there is a large chimp population, always nesting in the same gallery forest. The forêt classée has been greatly reduced and here again I wouldn't be surprised if there are numerous intergroup conflicts and if the chimpanzees are starving. There are many beekeepers in this area and they have great problem with chimpanzees stealing their honey. A dead baby chimp was during the nest monitoring in this area. The hunter also said that had found dead adult male chimp last year. This could be an indications of inter troop conflict given that such a large population is confined to such a small area. There is a desperate need for conservation efforts for chimpanzees here too.

IV. Areas with high density of chimpanzees but where chimpanzees are confined to a mountain and surrounded in human activities.

Forêt classée Bagata (2,000 ha classified in 1942) : MAMOU No

Chimpanzees aren't actually confined to the mountain here, but there are mostly only bosquets and gallery forests around the mountain. The local human population love the chimpanzees and especially children. There is said to be a paralysed chimp in the group here and we saw evidence of this from drag marks on the ground from where the chimpanzee had dragged his paralysed limbs. Many of the nests found were also less than 2m and the people say this is because he is unable to climb higher. This would be an interesting population to study.

Forêt Classée Fogoumba: (795 ha classified in 1944): MAMOU No

The forest covers a large mountain and is surrounded in agricultural land and steppes.

There are many chimpanzees here. They are said to steal livestock and raid crops but the local human population still like them.

Kourou Mountain, Gongoré : MAMOU No

There is not a forêt classée here, but there are many chimpanzees extremely isolated on one small mountain. There are nests in almost every tree. Chimpanzees and humans share the same water source and everyone always knows where the chimpanzees are on the mountain. This is one of the most isolated and high density groups I have seen. This area would be a fascinating place to study chimpanzees and extremely easy to follow them.

Fogo mountain: TOUGUE No

Here there are many chimpanzees isolated on a small mountain. During the census, the local people decided themselves to make the mountain a protected area in order to protect their wildlife and their water sources. This could be an interesting area for future studies and also future conservation work.

Bouroual: TELEMELE No

There is a steep mountain slope here with what appears to be almost primary dry dense forest. The forest has been naturally protected for years because it is thought to be haunted. It is said that if anyone cuts a tree down, they will die.

IV. Areas not visited but thought to contain viable chimpanzees populations; i.e. needing further investigation

As mentioned above, given restraints in time and resources, it was not possible to visit all areas where chimpanzees live in Guinea. The following are some areas thought to be especially important for chimpanzees, and would be worthy of future investigations.

Proposed transfrontier classified forest near the Baffing River: DINGUIRAYE

There are said to be many chimpanzees here and a high density of large mammals and low human density

Proposed transfrontier classified forest classified forest near the Sierra Leone border: FORECARIAH

Forêt classée of Saraboly was visited and is rich in especially primate species and high chimp density. The chef de Section of Forecariah says that this new park area is even richer in all sorts large mammals as well as chimpanzees and there are expanses of forest. It would be worth investigating.

Forêt Classée Kouya (67,000 ha classified since 1956)

I believe the habitat to be similar to Parc de Mafou and therefore chimpanzees to be there but dispersed. It may be worth investigating, however. There is also the haunted forest of Nanfouloutou close to here, which would be worth investigating too since it has stayed protected and undisturbed for a long time.

Proposed transfrontier classified forest at Niagassola, SIGUIRI

There are plans for a future classified forest here but reconnaissance surveys are needed. Horns from the Derby Eland were observed in a village here and local people report the presence of giraffe. Lions also apparently occur here in very high densities. Chimpanzees certainly do exist here but people do hunt them, so they are probably only in high densities in inaccessible areas near the frontier with Mali

SUGGESTIONS FOR THE HUNTER MONITOR COMPONENT

The final component of the Projet de Conservation des Chimpanzés is the "hunter monitor" work. This is where hunters living close to or within chimp habitats will be responsible for monitoring chimpanzee populations themselves. The following are some suggestions on how this could work:

Grouppement des chasseurs

In many areas of Guinea there traditionally exists what are called "Grouppement des Chasseurs". The structure and hierarchy within these groups is often complex. I worked with one "chefs des chasseurs" in Macenta. With this hunter we came upon a poacher's camp within the forest. The chef de chasseur was extremely angry because he was not aware of who these people were and what they were doing. The hunters destroyed his camp, stole all the food and clothing that was left there and left a note asking the people to report to the "chef de chasseurs" in their village if they wanted their belongings back.

According to this "Chef de chasseurs" apparently all hunters must ask him permission if

they would like to go hunting and and they must also report to him what they have killed each day. He only allows a certain number of hunters in the forest each night and controls what they hunt.

It is pointless to enforce new structures and systems in societies where systems that work may already be in place. It was not within the scope of this study to design management plans for chimpanzee habitats, but observations from areas where these "grouppement des chasseurs" exist, suggest that these groups may be a useful conservation tool.

In Guinean society it is the men who traditionally hunt. Unfortunately many of the rules and regulations concerning hunting are rarely transmitted to the younger generation and therefore values and laws are not being passed on. Creating or reinforcing "groupement des chasseurs" may encourage this passing on of information to future generation.

The chef de chasseur could also become involved in research components of the *Projet de Conservation des Chimpanzés* by keeping a record of what is being hunted and in what quantity. He could keep a log book of what species were seen and where. More detailed studies on the behaviour and ecology of chimpanzees could be done in these special areas. The most important and immediate information that should be collected on chimpanzee populations concerns their land use and migratory patterns. Studies of feeding ecology would also be important in order to determine the most important foods, whether there are any key stone resources, to document the seasonal changes in diet and to correlate any ecological factors with crop raiding and preying upon livestock.

SUMMARY

In summary, Guinea is an extremely important country for future conservation efforts as it is here that the largest population of the most endangered sub-species of common chimpanzees lives. The situation for chimpanzees in this country, however, is desperate as most remaining communities of chimpanzee live in very fragmented and isolated populations. In some parts of Guinea chimpanzees are naturally protected through cultural, traditional and religious beliefs and it is here that there is the greatest hope for the long term survival of chimpanzees if effective means of protecting and managing their last remaining habitat can be found. Although most other species of large mammal are found at very low densities, Guinea is extremely rich in the number of species still living there and it is hoped that this preliminary survey can guide future research and conservation efforts to areas important for all of these species.

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APPENDIX I. CLASSIFIED FORESTS IN GUINEA

DOMAINE FORESTIER CLASSE
DE LA REPUBLIQUE DE GUINEE
(Source : FAO, TCP/GUI/2252)

A.- BASSE GUINEE
Surface totale classée : 70.758 hectares

	Arrêté de classement	Superf.(Ha)	Carte	Etude	Cat.MAB	Fiche
Préfecture de Conakry						
Surface totale classée : 672 ha						
Forêt de KALOUM	3115/SEF; 25/4/1955	672	+	+	VIII	1
Préfecture de Coyah						
Surface totale classée : 6843 ha						
Forêt du MONT BALAN	1951/SE/EF; 01/06/1942	2.000	+	+	VIII	2
Forêt du MONT SALIA	1952/SE/EF; 01/06/1952	4.943	+	+	VIII	3
Préfecture de Dubréka						
Surface totale classée : 13.150 ha						
Forêt de KABITAYE	2349/SE/F; 18/08/1944	4.900	+	+		4
Forêt du MONT KAKOULIMA	1255/SE/F; 03/05/194	4.350	+	+		
Forêt du MONT DDANN	?	3.900				
Préfecture de Forécariah						
Surface totale classée : 850 ha						
Forêt de SARABOLI	16/09/1952	850	+	+		5
Préfecture de Kindia						
Surface totale classée : 49243,35 ha						
Mont BALANDOUGOU	1886 SE/F; 01/03/1943	2.800	+			6
Palmeraie de BEKO	15/07/1941	800	+	+	VIII	7
Forêt de BOTOKOLI	18/06/1942	2,300	+	+	VIII	8
Forêt de DAMAKHANIA	693 SE/F; 06/03/1944	425	+	+	VIII	9
Forêt de GANGAN	4435 SE/F; 16/12/1942	9,000	+	+	VIII	10
GRANDES CHUTES	2871 SE/F; 19/10/1944	13-500 13500	+	+	VIII	11
Forêt de KHENLAN	2170 SE/F; 23/03/1955	48.35	-	-	VIII	12
Forêt de KOLENTE	?	500	+			-
Forêt de KOMBITIDE	887 SE/F; 01/03/1943	1,700	+	+	VIII	-
Forêt de KOURADI	2292 SE/F; 01/07/1942	3,000	+	+	VIII	13
Forêt de SIERRA FORÉ	4342 SE/F; 07/12/1942	4.100	+		VIII	-
Monts SOUTI-YANFOU	3410 SE/F; 22/09/1943	11,000	+	+		14
Sources de KINDIA	2272 SE/F; 02/05/1949	70	+		VIII	15

$\Sigma = 1.079.240$ ha

4 pas ou liste DNEF
2 → possible
1 → IGN ok
1 → ? (réponse)

DOMAINE FORESTIER CLASSE DE LA REPUBLIQUE DE GUINEE

(Source : FAO, TCP/GUI/2252)

B.- MOYENNE GUINEE

Surface totale classée : 396.482 ha

Préfecture de Dalaba

Surface totale classée : 3.136,5 ha

Jardin CHEVALIER	1816/SE/SF;	03/09/1940	37.4	+	+		16
Jardin CHEVALIER (agrand.)	2947/SE/F	15/04/1954	9.12	+	+		
Forêt de FOUAOUNIBA	2537/SE/F	08/09/1944	795	+	+	VIII	17
Forêt de GALI	3407/SE/F	11/09/1943	650		+		VIII 18
Forêt de KAIA	2345/SE/F	18/08/1941	240	+	+	VIII	19
Forêt de NIIRIRÉ	2344/SE/F	18/08/1941	230	+		VIII	20
Forêt de MOMBÉYA	3409/SE/F	"7/09/1943	225	+		VIII	21
Forêt de TANGANIA	2347/SE/F	18/08/1941	410	+	+	VIII	22
Forêt de TINKO	2088/E	23/11/1931	540			VIII	23

Préfecture de Gaoual

Surface totale classée : 45.625 ha

Forêt de FELLO DIGUI	415/PRG	24/10/1967	2.925				
Forêt de FELLO SOUNGA	9331/SE	29/12/1954	6.700	+	+	VIII	
Forêt de TO MINE-KOUMBA	1709/SE	22/07/1936	36.000	+	+	VIII	

Préfecture de Kou b i a

Surface totale classéé : 37.568 ha

Forêt de WO UNDOU NO RD	3799/SE/F	16/06/1952	28.168	-		VIII	
Forêt de WOUNDOU SUD	2584/SE/F;	06/04/1952	9.400	-		VIII	

Préfecture de Kou n d ara

Surface totale classée : 113.800 ha

Parc national du BADIAR	1985	38.200	+	+			
Forêt de BADIAR SUD	19M/SE/F; 14/04/1956	8.600	+	+	VIII	24	
Forêt de NDAMA	9339/SE ; 29/12/1956	67.000	+	+	VIII	25	

Préfecture de Labé

Surface totale classée : 5328 ha

Forêt de DARALABE	2666/SE/F, 23/07/1943	375	+		VIII	26	
Forêt de HORE DIMMA	2859/SE/F; 30/11/1936	1.057	+			27	
Forêt de LA HAUTE KOMBA	3356/SE/F; 12/12/1944	1.300	+		VIII	28	
Forêt de LEI-BILLEL	1747/SE/F; 06/04/1955	172	+		VIII	29	
Forêt de SALA	2486/SE/F; 13/08/1945	568		+		VIII	30
Forêt de SÉRIMA	2668/SE/F; 23/07/1942	1.520		+		VIII	31
Forêt de TIALAKOUN	4673/SE/F; 22/08/1950	336	+		VIII	32	

Préfecture de Lélouma

Surface totale classée : 10.000 ha

Forêt de NIALAMA	2667/SE/F; 1943	10.000				33	

Préfectrure de Mali

Surface totale classée : 19.950 ha

Forêt de LA GAMBI	3492/SE	06/05/1955	15000 15@	+	+	VIII	34
Forêt de LA KABÉLA	4M/SE	31/05/1955	3.9m	+	+	VIII	35
Forêt du MONT LOURA	6091/SE	03/08/1955	530	+	+	VIII	36

Préfecture de Mamou
Surface totale classée : 54.479 ha

Forêt de RAGATA	1013/SE/F;16/03/1942	2.200	+	-	VIII	37
Forêt de BENTARARAWEL	1969/SE/F;21/08/1936	325	+	-	VIII	38
Forêt de BEAUVOIS	3133/SE/F;13/10/1945	2.300		-	VIII	39
Forêt de BILLEL	1577/SE/F;06/06/1944	1.350	+	-	VIII	40
Forêt de DAR SALAM	9335/SE/F;29/12/19.54	17.474	+	+	VIII	41
Forêt de DIOGOURÉ	2895/SE/F ; 12/08/1943	1.000	+		VIII	42
Forêt de FELLO DIOUMA	1969/SE ; 21/08/1936	350	+		VIII	43
Forêt de FITAKOUNA	3143/SE/F; 10/09/1942	95	+		VIII	44
Mont GOUBA	3135/SE/F ; 13/10/1945	950	+		VIII	45
Forêt de GUÉROUAL	4641/SE/F; 30/12/1942	3.300			VIII	.46
Forêt de KAMBIA	1578/SE/F ; 06/06/1944	520	+		VIII	47
Forêt de KONKOURÉ FETTO	1208/SE/F; 20/01/1945	1200	+		VIII	48
Forêt de KOUMI	1579/SE/F , 06/06/1944	730	+			49
Forêt de PINSELLI	3419/SE/F; 26/11/1945	13.000	+		VIII	.50
Forêt de QUÉHUEL'	4169/SE/F; 21/08/1936	600	+		VIII	51
Forêt de SATIBA	1580/SE/F ; 06/06/1944	400	+			52
Sources de la SERÉ	4169/SE/F; 21/08/1936	285	+		VIII	55
Forêt de SOOYA -	3420/SE/F; 10/11/1945	8.400	+		VIII	54

Préfecture de Pita
Surface totale classée : 6.4.56,13 ha

Forêt de BINTI	2146/SE/F; 31/07/1944	410	+		VIII	
P.Rest. BOMBOLI & TANGUÉ	3118/SE/F; 21/04/1955	65,13	+			
Forêt des CHUTES DE KINKON	3114/SE/F; 25/04/1955	320	+		VIII	
Forêt de DJIMBERA	- (OOI/SE/F,28/8/1885)	700				
Forêt de KAKRIMA	- *(1955)*	238			VIII	
Forêt de LA KORA	2580/SE/F; 06/04/1955	750	+		VIII	
Forêt du LAC DE PITA	3111/SE/F; ')5/04/1955	24	+			
Forêt de MITI KAMBADAGA	2145/SE/F; 31/07/1944	330	+		VIII	
Forêt de la R.N. de MAMOU	4453/SE/F; 10/06/1955	119	-			
Forêt de SAMBALANKAN	1837/SE/F; 15/03/1952	3.500	+		VIII	

Préfecture de Télimélé
Surface totale classée : 23.940 ha

Forêt de COUNSIGNAM	2583/SE/F; 06/04/1955	13.700	+	+	VIII	64
Forêt de GOULGOUL	2582 SE/F; 06/04/1955	6.800	+	+	VIII	65
Forêt de GUÉMÉ SANGAN	3990/SE/F; 1.5/07/1956	2.740	+	-	VIII	66
Forêt de PARADJI	2581/SE/F; 06/04/1955	700	+		VIII	-

Préfecture de Tougué
Surface totale classée : 76200 ha

Forêt de BAKOUN	3110/SE/F; 25/04/1955	28.000	+	+	VIII	67
Forêt de BANI	357/SE/F; 16/01/1952	18.900	+	+	VIII	68
Forêt de BOUIA	4091/SE/F; 31/05/1955	21.500	+	+	VIII	69
Forêt de DOKORO	3575/SE/F; 07/06/1952	7.800	+		VIII	70

DOMAINE FORESTIER CLASSE
DE LA REPUBLIQUE DE GUINEE
(Source : FAO, TCP/GUI/2252)

C. - HAUTE GUINEE
Surface totale classée : 293.000 ha

Préfecture de Dabola
Surface totale classée : 42.100 ha

Forêt de BALAYAN	1177/SE/F; 19/02/1952	25.000	+			71
Forêt des CHU TES DU TINKISSO	22/01/1945	1.100	+		VIII	72
Forêt de SINCERY ET LOURSSA	2118/SE/F; 10/06/1943	14.000	+	+	VIII	73
Forêt de SOUARELLA	14/10/1941	2.000	+	+	VIII	74

Préffecture de Dinguiraye
Surface totale classée : 13.028 ha

Forêt de FELLO-SELOUNIA	4464/SE/F; 10/06/1955	4.000	+		VIII	-
Forêt de SOBORY	- (1956)	7.177	+		VIII	-
Forêt SOURCES DE DINGUIRAYE	5621/SE/F; 10/10/1951	71	+		VIII	-
Forêt de TAFSIRBA	- (21/01/1961)	1.780			VIII	-

Préfecture de Faranah
Surface totale classée : 57.170 ha

Forêt de LA MAFOU	9332/SE/F; 29/12/1954	52.400	+	+	VIII	75
Forêt de la SOURCE DU NIGER	1206/SE/F; 20/04/1945	4.770	+	+	VIII	76

Préfecture de Kankan
Surface totale classée : 65.020 ha

P. Reb. de BÉRÉKÉNA	6092/SE/ ; 03/08/1955	120	+		VIII	77
Forêt de KOUMBANKOUROU	1953/SE/F; 01/06/1942	4.000	+	+	VIII	78
Forêt de KOURANI-OULÉTÉ	3142/SE/F; 10/09/1942	59.000	+		VIII	79
Forêt de LEFARANI	IIII/SE/F; 17/03/1943	1.900	+	+	VIII	go

Préfecture de Kouroussa
Surfact totale classée : 116.527 ha

FOrêt de LAMANA	1836/SE/F; 15/03/1952	19.800	+	+	VIII	81
Forêt de BARO	1110/SE/F; 17/03/1943	8.000	+	+	VIII	82
Forêt de LA KOUYA	1&38/SE/F; 15/03/1952	67.400	+	+	VIII	83
P-Rr-b.du NIGER	4674/SE/F; ')/08/1950	727				
FOrêt de NONO	1629/SE/F; 09/07/1936	5.600	+		VIII	
FOrêt de TAMBA	1209/SE/F; 20/04/1945	15.000	+		VIII	

DOMAINE FORESTIER CLASSE DE LA REPUBLIQUE DE GUINEE

(Source : FAO, TCP/GUI/2252)

D. - GUINEE FORESTIERE

Surface totale classée : 319.000 ha

Préfecture de Beyla

Surface totale classée : 55.456 ha

P.Reb. de BEYLA	1925/SE/F; 19/11/1951	421	+		VIII	84
Forêt de BERO	505/SE/F; 21 01/1952	23.600	+	+	VIII	85
Forêt de GUIRNA	- (1954)	810	+	+		96
Forêt de KEOULINDOUGOU	2126/EF ; 17/04/1956	1.050	+	+		87
Forêt du PIC DE TIBE	1207/SE/F ; 20/04/1945	6.075	+	+	VIII	88
Forêt du MONT TETINI	2164/SE/F; 23/03/1955	23.500	+	+	VIII	89

Préfecture de Gueckédou

Surface totale classée : 4.200ha

Forêt du MONT KONOSSOU	3495/SE ; 06/05/1955	2.680	+	+	VIII	90
Forêt du MONT KOLOUMBA	2529/SE/F; 19/07/1943	1220	+	+	VIII	91
Forêt du MONT KOUYA	2530/SE/F; 19/07/1943	300	+	+	VIII	92

Préfecture de Kissidougou

Surface totale classée : 8.412,7 ha

Forêt de BAMBAYA	5622/E/F; 10/10/1951	336		+		93
Arbomtum de la MOFFA	826/SE/F;1950	34	+	-	VIII	94
Forêt de OULADIN	4672/SE22/08/1950	1.500	+	-	VIII	95
P.Reb. de SANGABALADOU	5542/EF/04/11/1955	146.7	+	-	VIII	96
Forêt de SELLY-KORO	5620/SE/F; 10/10/1951	2.300	+	+	VIII	97
Forêt de YARDO	5825/EF ; 20/11/1956	4.096	+		VIII	98

Préfecture de Lola

Surface totale classée : 19.703 ha

Forêt de LAINÉ	- (1955)	203	+	+	VIII	99
Forêt des MONTS NIMBA	4190/SE/F; 13/12/1943	19.500	+	+	I.IX.X	100

Préfecture de Macenta

Surface totale classée : 155.690 ha

Forêt des COLLINES DE MACENTA (y compris agr.)	3202/SE/F; 17/10/1945	870			VIII	101
Forêt de LOFFA (y comprisagrand.)	1214/SE/F; 20.04.1945	2.620	+		VIII	102
Forêt de MAKONA	3145/SE/F; 10/09/1942	700	+	+	VIII	103
Forêt de MILO	2801/SE/F, 10/08/1942	13.600	+	+	VIII	104
Forêt du PIC DE FON (en partie sur la préf. de Beyla)	8113/SE/F; 04/11/1953	25.600	+	+	VIII	115
Forêt de ZIAMA	3272/SE/F; 12/09/1943	112.300	+	+	I	106

Préfecture de Nzérékoré

Surface totale classée : 4.828ha

Forêt du MONI BANAN	4671/SE/F; 22/08/1950	990	+		VIII	
P. Reb. NZÉRÉKORÉ	5619/SE/F; 10/10/1951	78	+		VIII	107
Forêt des MONIS YONON	3506/SE/F; 20/06/1950	4.750	+	+	VIII	108

Préfecture de Yomou

Surface totale classée : 71.095 ha

Forêt de DIECKE	1212/SE/F; 20/04/1945	64.000	+	+	VIII	109
Forêt de Diecké (declassé 70 ha)	9269/SE/F; 26/11/1955	-70				
Forêt de GBINIA	- (1945)	6.173	+	+	VIII	110

APPENDIX II. ORDRE DE MISSION

REPUBLIQUE DE GUINEE
TRAVAIL - JUSTICE - SOLIDARITé

MINISTERE DE L'AGRICULTURE
DE L'ELEVAGE ET DE LA FAUNE

DIRECTION NATIONALE
DES FORETS ET DE LA FAUNE

N° 245 /DNFF/95

ORDRE DE MISSION

Conakry, le 28 DEC. 1995

Il est ordonné à A MME DR. REBECCA HAM

de nationalité CANADIENNE

Profession ou fonction EXPERT CHARGE DU VOLET INVENTAIRE DES CHIMPANZES?DU PROJET CONSERVATION DES CHIMPANZES EN GUINEE

De se rendre à DANS TOUTE LA GUINEE

Objet de la mission LOCALISATION,INVENTAIRE ET ETUDE DES CHIMPANZES EN GUINEE

Moyen de transport MITSHIBISHI PAJERO IT-3729 - RG

Conduit par TRAORE DIDIANE

Date de départ LE IER JANVIER 1996

Date de retour FIN DE MISSION

Les autorités civiles et militaires des Préfectures traversées sont priées de faciliter l'accomplissement de la présente mission.

MAEF - DIRECTION Nle FORETS ET FAUNE - LE DIRECTEUR

LE DIRECTEUR NATIONAL

SERA BAKO CONDE

Vu à l'arrivée
Pita le 2/2/96

République de Guinée
Préfecture de PITA
LE PREFET

Vu à l'arrivée
Timbi Madina, 2 Février 19
Le Sous-Préfet
Osmane Diallo

Vu au départ
Timbi Madina le 4 Février 1996
Le Sous-Préfet
Osmane Diallo

Vu à l'arrivée à
Gaoual le 06/2/9
Le DPDRE

Direction Préfectorale du Développement Rural et Environnement
Le Directeur
Gaoual

Vu à l'arrivée
Mamou 15/
Le Chef Section

Section Protection Forêts & Chasse
Le Chef de Section
MARA - Préf. Mamou - DNFC

Vu au départ
Gaoual, le 8/2/96
Le Chef de Section Faune.
P. Soparogui

Section Protection Forêts & Chasse
Le Chef de Section
MARA - Préf. Gaoual - DNFC

Vu à l'arrivée
Saramasaya
le 19 1996
Le Sous-Préfet

Vu à l'arrivée à Dabola le 16 Fév. 1996
Le Sous Préfet
Zakaria Camara

RG-PI Mamou

Vu à l'Arrivée
Le jour 22/02/96
Le Sous Préfet
Tourmarame

Préfecture de TOUGUE

Vu au départ
Mamou le 26/2/96
Le Dpdrt

Direction Préfectorale de l'Agriculture
Préfecture de Pita
Préfecture Préfectorale
Préfecture Préfectorale
Préfecture Préfectorale

Vu à l'arrivée
Dub le 13/11/96
Le SGPA

Vu à l'arrivée
de Mali, le 23/5/96
Le S/Préfet
Le SGCD

Vu à l'arrivée, le 26 Mai 96
et le départ le 28 Mai 96
à Balakri -
Le S/P Agulbou
Keita

Vu à l'arrivée
Kouroussa le 2/6/1996
Le Sous-Préfet
Alpha Hadjalaye Baldé

Vu à l'arrivée et au départ
Kundara le 12/09/96
Le Préfet P.O. le SG/DA
Osmane Keita

Vu à l'arrivée et au
départ de Dla le 28-9-96
P/ le Chef de Section P.O.
Le 1er Chargé des Forêts
Amadou Keita

Vu à l'arrivée
DyE, le 29/09/96
Le Préfet
Baly Cumara

Vu au départ
Dinguiraye, le 01/10/96
Le Préfet
Baly Cumara

Vu à l'arrivée et au départ
le 1/10/96
Le Préfet P.O
SGPA

Vu à l'arrivée et
au départ de Forécariah
le 18/11/96
le ADDRE

Préfecture de Forécariah
LE CHEF DE SECTION
Bureau des Ressources Humaines

Vu à l'arrivée et au départ
Kankan le 18/11/96
Préfet p.o
Ibrahima Bédi Bah

République de Guinée
S.G./C.D.
Préfecture de Forécariah

Vu à l'arrivée
Farmoréah le 18/11/96
Le Sous-préfet
M. Mélzyo Téné

Vu à l'arrivée et au départ Banfèlé
le 9/12/1996
Le Sous-Préfet
Kaliel Casimir Traoré

Vu à l'arrivée
Sikhourou le 21/11/96
Le Sous-Préfet
Diallo Thierno Saïdou

Préfecture Forécariah
Sous-Préfecture IKHOUROU

Vu au départ
Sikhourou le 21/11/96
Le Sous-Préfet
Diallo Thierno Saïdou

Préfecture Forécariah
Sous-Préfecture IKHOUROU

Vu à l'arrivée
Kouankoro, le 13/02/97
Le Préfet
Fatly Mara

Vu à l'arrivée
le 9/03/97 au Mont
Béro Gouecki
P.O le chef du bureau d'étude
Gulavogui Kaba

Vu à l'arrivée
Lola, le 13.3.97
Le Secrétaire Général Affaires Administratives
R.G. PRÉFECTURE DE LOLA
J. Lamin Fromah

Vu à l'arrivée et au départ
Bossou le 13-03-97
Le sous-préfet
Le Sous-Préfet
Préfecture Lola Bossou
Mr Le Sous-Préfet (s/Sé)
Sory Traoré

Vu à l'arrivée
N'Zérékoré, 06-03-9
Le chef section
Section Protection Forêts & Chasse
Le Chef de Section
MARA-Préf. N'Zérékoré-DNFC
Alain Nabhel
Diallo

Vu à l'arrivée et au retour
Beyla, le 11/03/97
Le chef de section
Forêts et faune
Section Forêts Faune
Le Chef de Section
MARA - Préf. Beyla - D.N.F.C.
Mady Keita

Vu à l'arrivée
Lola le 15/3/97
Le Sous Préfet
LE SOUS-PRÉFET
Mansare FAKI

Vu à l'arrivée et au départ
à Fria le 2/4/1997
le SG/AP

Vu à l'arrivée à
Boffa le 04/04/97
APARE

LE DIRECTEUR
PREFECTURE DE BOFFA
DIRECTION DE DEVELOPPEMENT RURAL ET ENVIRONNEMENT
Mamady Condé

Vu à l'arrivée et au
départ à Boké
le 07/04/97

Section Protection Forêts & Chasse
Le Chef de Section
CAMARA - Préf. Boké - DNFC

Vu à l'arrivée et au
départ à Boké, le
07 Avril 1997
P. Le Prefet P.O
Le Secretaire general des
Collectivités Décentralisées

République de Guinée
Le Secretaire Général
Chargé des Collectiv
Décentralisées
Préfecture de Boké

Vu à l'Arrivée et
au départ à Siguiri
le 28 Avril 1997
Le S.G.C.D.

REP. DE GUINEE
SECRETAIRE GENERAL
DES COLLECTIVITES
DECENTRALISEES
PREFECTURE DE SIGUIRI
Bangoura

APPENDIX III. QUESTIONNAIRE

QUESTIONNAIRE:

Nom:_____
Date:(jour/mois/année):_____
Organisation:_____
Qualité:_____
Zone concernée: a) Préfecture:_____
b) Sous-préfecture:_____
Combien de temps avez-vous travallé dans cette Préfecture/Sous-Préfecture?_____
Allez-vous en brousse...
❒chaque jour? ❒chaque semaine? ❒chaque mois?

1. Est-ce qu'il y a actuellement des chimpanzés habitant dans cette Préfecture/Sous-Préfecture?

❒ oui ❒ non

2. Si "oui", comment savez-vous qu'ils existent? (Vous pouvez marquer plusieurs réponses)
❒ vous avez vu leurs nids
❒ vous avez vu leurs traces
❒ vous avez entendu leurs cris
❒ vous les avez vus
❒ vous connaissez quelqu'un qui les a vus

3. Si vous avez vu des chimpanzés dans cette Préfecture/Sous-Préfecture, dites
a) Combien de fois?_____
b) Quand vous les avez vus la dernière fois?_____
c) Où les avez-vous vu le plus souvent dans votre Préfecture/Sous-Préfecture? Donnez le nom de la zone: village, rivière, montagne, forêt, champ, plantation, etc.)

4. Avez-vous vu des chimpanzés dans une autre Préfecture/Sous-Préfecture?
❒ non
❒ oui ,...où (voir question 3.c)_____

5. A votre avis...
a) les chimpanzés habitant actuellement dans votre Préfecture/Sous-Préfecture sont
❒ Très nombreux Environ combien?_____
❒ Moyennement nombreux Environ combien? _____
❒ Rares Environ combien? _____
❒ Absents Environ combien? _____
b) Combien de groupes de chimpanzés habitent actuellement dans votre Préfecture/Sous-Préfecture?_____
c) Chaque groupe est constitué de combien de chimpanzés?_____
d) Ces groupes sont-ils très localisés?
❒ non
❒ oui, où?_____
e) Est-ce que le nombre de chimpanzés...❒ augmente ❒ est stable ❒ diminue

6. Est-ce que la présence des chimpanzés est...
❒ régulière toute l'année ❒ temporaire ❒ saisonnière?

7. Est-ce qu'il y a des périodes de l'année où les chimpanzés s'approchent plus des villages?
❒ non
❒ oui Quand?_____

8. Quel type d'habitat les chimpanzés préfèrent-ils?_____

9. Quelle est l'attitude des paysans vis à vis des chimpanzés?
❒ sentimentale ❒ indifférente ❒ aggressive Remarques?

10. Connaissez-vous des contes ou proverbes sur les chimpanzés? Lesquels?

11. a) Y a t-il des lois coutumières ou religieuses qui protègent les chimpanzés. Si oui, lesquelles?

12. Quelles sont les espèces d'animaux qui existaient auparavant dans cette Préfecture/Sous-Préfecture, et qui ont maintenant disparu? Citez-les et dites quand est-ce qu'elles ont disparu.

Questions concernant la chasse

1. Le chimpanzé est-il victime du braconnage dans votre Préfecture/Sous-Préfecture?
❒ souvent ❒ rarement ❒ prèsque jamais ❒ jamais

2. a) La viande de chimpanzé est-elle consommée dans votre Préfecture/Sous-Préfecture?
❒ non ❒ oui
b) Si oui, cette consommation est-elle:
❒ importante ❒ moyenne ❒ peu
c) La viande de chimpanzé est-elle exportée
❒ non
❒ oui ,...où_____

3. Dans quelle zone la chasse est-elle la plus importante dans votre Préfecture/Sous-Préfecture?

4. Dans quelle zone la chasse est-elle la moins importante dans votre Préfecture/Sous-Préfecture?

5. Quelles sont les espèces les plus chassées? Pourquoi?

6. Quelles sont les èspeces non chassées? Pourquoi?

Ci joint, les dessins de 74 espèces animales. Sur ce tableau, indiquez à côté de chaque numéro si l'espèce est absente, rare, moyennement présente, ou abondante dans votre Préfecture/Sous-préfecture

NUMERO	ANIMAL	ABSENT	RARE	MOYENNEMENT PRESENT	ABONDANT	REMARQUES
1	Chimpanzé					
2	Cynocépahle, Babouin					
3	Singe rouge, Patas					
4	Cercocèbe à collier blanc					
5	Colobe de Van Beneden					
6	Colobe blanc et noire					
7	Cercopithèque diane					
8	Colobe bai					
9	Pétauriste					
10	Singe vert, Vervet					
11	Mone					
12	Hocheur					
13	Potto					
14	Galago					
15	Cobe de Buffon					
16	Guib harnaché					
17	Gazelle à front roux					
18	Redunca, Cobe des roseaux					
19	Céphalophe de Grimm					
20	Céphalophe à dos jaune					
21	Céphalophe de Jentink					
22	Céphalophe bai					
23	Céphalophe noir					
24	Céphalophe d'Ogilby					
25	Céphalophe à flancs roux					
26	Céphalophe bleu					
27	Céphalophe zèbré					
28	Antilope royale					
29	Chevrotain aquatique					
30	Buffle d'Afrique					
31	Buffle nain					
32	Eland de Derby					
33	Hippotrague					
35	Cobe defassa					
36	Damalisque, Topi					
37	Bubale					
39	Ourébi					

NUMERO	ANIMAL	ABSENT	RARE	MOYENNEMENT PRESENT	ABONDANT	REMARQUES
40	Lion					
41	Léopard, Panthère					
42	Hyène rayée					
43	Hyène tachetée					
44	Lycaon					
45	Chacal					
46	Chat sauvage d'Afrique					
47	Caracal					
48	Serval, Chat-tigre					
49	Chat doré					
50	Genette					
51	Nandinie					
52	Poiane					
53	Civette					
54	Zorille					
55	Ratel					
56	Mangouste					
57	Loutre					
58	Athérure					
59	Porc-épic					
60	Rat de Gambie					
61	Aulacode					
62	Hérisson					
63	Daman					
64	Lièvre					
65	Pangolin Géant					
66	Pangolin					
67	Phacochère					
68	Potamochère					
69	Hylochère					
70	Orctérope					
71	Hippopotame pygmée					
72	Hippopotame					
73	Eléphant					
74	Lamantin					

TOUTE INFORMATION COMPLEMENTAIRE SUR LA FAUNE SAUVAGE DE VOTRE PREFECTURE/SOUS-PREFECTURE NE POUVANT PAS FIGURER DANS CE PRESENT QUESTIONNAIRE PEUT ETRE MENTIONEE EN ANNEXE SUR DES PAGES COMPLEMENTAIRES CELLES-CI SERONT LES BIENVENUES

APPENDIX IV. LETTER ACCOMPANYING THE FIRST DISTRIBUTION OF THE QUESTIONNAIRES

MINISTERE DE L'AGRICULTURE
DE L'ELEVAGE ET DES FORETS

DIRECTION NATIONALE
DES FORETS ET DE LA FAUNE

N° 0019/DNFF/.....

REPUBLIQUE DE GUINEE
Travail - Justice - Solidarite

Conakry, le 08 JAN. 1996

LE DIRECTEUR NATIONAL

Objet : Inventaire de chimpanzés

A Messieurs les

- **Chefs de Sections Protection forestière et faune,**
- **Chefs de Projets ;**
- **Chefs de Cantonnements forestiers**
- **Représentants des ONG sur le terrain.**

Messieurs,

Dans le cadre de la mise en oeuvre du "Projet de conservation des chimpanzés en Guinée", je vous avais informé dans ma correspondance n°915/DNFF du 20 décembre 1995 que Dr Rebecca Ham, Assistante de Projet, Janis Carter, Chef de Projet devraient travailler sur toute l'étendue du territoire national.

Dans le cadre de l'exécution du volet inventaire de ce projet, je vous envoie ci-joint un questionnaire constituant la première étape de cet inventaire.

Les informations qui seront obtenues de ce questionnaire nous permettront de connaître les zones d'importance particulière pour la vie sauvage en Guinée.

L'inventaire sera mené sur le terrain durant les 14 prochains mois et j'apprécierai vivement que le questionnaire soit rempli par vous mêmes, chefs de Section Protection forestière, Chefs de Cantonnements forestiers, représentants d'ONG

Chaque personne concernée par le questionnaire doit le remplir en se limitant spécifiquement à la sous-préfecture où il intervient sauf si on lui demande autrement.

Les réponses ne doivent pas être celles d'un groupe, mais plutôt de l'individu concerné.

Les questionnaires dûment remplis doivent parvenir à la Direction nationale des Forêts et de la Faune au plus tard le 30 Mars 1996, délai de rigueur.

J'attache une importance particulière au traitement de ce questionnaire, car les futures mesures de conservation de la faune sauvage en Guinée en dépendent.

P.J. Questionnaire

MAEF - DIRECTION Nle FORETS ET FAUNE
LE DIRECTEUR

SERA BAKO CONDE

APPENDIX V. LETTER EXPLAINING THE PROJET DE CONSERVATION DES CHIMPANZÉS

République de Guinée
MINISTERE de L'AGRICULTURE de L'ELEVAGE et des FORETS
DIRECTION NATIONALE des FORETS et de la FAUNE

Union Européenne
Commission des Communautés Européennes
FONDS EUROPEEN DE DEVELOPMENT

PROJET B75040/VII/94/05

"PROJET DE CONSERVATION DES CHIMPANZES EN GUINEE"

Pourquoi?

Autrefois les chimpanzés habitaient dans au moins 25 pays de l'Afrique Equatoriale. De nos jours, ils ont complètement disparus dans 4 pays et sont en voie d'extinction dans une dizaine d'autres. Dans les pays où ils survivent encore, ils sont menacés par la destruction de leur habitat à travers l'agriculture et la coupe de bois, l'exploitation commerciale, la vente locale (viande de gibier et animaux-chouchou à la maison). La Guinée, citée par la Convention sur le Commerce International des espèces d faune et de flore sauvages menacés d'extinction (CITES) comme un pays où les chimpanzés sont menacés, dispose d'une loi qui protège intégralement cette espèce. Malgré cela, la population de chimpanzés est estimée à approximativement la moitié de ce qu'elle était il y a 30 ans. Il est évident que si le déclin continue à ce rythme, les chimpanzés auront complètement disparu en Guinée dans une dizaine d'années.

Quoi?

Le but du Projet Conservation des chimpanzés en Guinée est de jeter les bases de la conservation du reste de population de chimpanzés vivant en Guinée. Le projet est financé par l'Union Européenne et sera conduit en collaboration avec la Direction Nationale des Forêts et de la Faune.

Comment?

Le projet de conservation des chimpanzés en Guiné envisage de travailler en vue de la conservation des chimpanzés à travers la recherche et l'éducation en mileu rural où vivent les chimpanzés. L'une des premières activités du projet est de conduire un inventaire de la population de chimpanzés à l'échelle de tout le pays pour: (1) déterminer leur densité, (2) évaluer l'état des habitats naturels, (3) recueillir des informations sur les activités et attitudes humaines vis-à vis de cette espèce et (4) identifier des sites potentiels pour la réintroduction à la vie sauvage des chimpanzés confisqués. Cette information sera utilisée pour orienter les conservation des chimpanzés en Guinée. Bien qu'au cours de cet inventaire l'emphase sera mise sur les chimpanzés, une information additionnelle sera réunie sur les autres grands mammifères en Guinée.

Quand?

Le projet de conservation des chimpanzés en Guinée durera trois ans à compter de Novembre 1995.

Où?

L'inventaire couvrira l'ensemble du pays, en commencant par le Foutah Djallon en janvier 1996.

APPENDIX VI. LETTER ACCOMPANYING THE SECOND DISTRIBUTION OF THE QUESTIONNAIRES

République de Guinée
MINISTERE de L'AGRICULTURE de L'ELEVAGE et des FORETS
DIRECTION NATIONALE des FORETS et de la FAUNE

Union Européenne
Commission des Communautés Européennes
FONDS EUROPEEN DE DEVELOPMENT

PROJET B75040/VII/94/05
"PROJET DE CONSERVATION DES CHIMPANZES EN GUINEE"

DIRECTION NATIONALE DES FORETS ET DE LA FAUNE, B.P.624 Conakry

Labé le 14 fevrier 1996

A Messieurs les
-Chefs de Sections Protection forestière et faune
-Chefs de Projets
-Chefs des Cantonnements Forestiers
-Représentants des ONGs sur le terrain

Messieurs,

j'espère que vous avez maintenant tous reçu le questionnaire concernant les chimpanzés et les autres grands mammifères en Guinée. J'aimerai vous adresser mes remerciements pour avoir pris le temps de répondre à ces questions et pour vos efforts à retourner le questionnaire au 30 mars. Je suis très impatiente de pouvoir analyser les résultats en avril. L'étude préparatoire à l'inventaire a été réalisée en janvier 1996 et je vais maintenant commencer le recensement sur le terrain.

Je voyage avec un chauffeur et un assistant de terrain/traducteur. Dès mon arrivée dans chaque Préfecture j'irai directement rencontrer le Chef de Section Forestière. Je serai très reconnaissante au Chef de Section Forestière s'il pouvait me présenter à Monsieur le Préfet et au DPDRE afin que je puisse leur présenter le projet et qu'ils puissent signer mon ordre de mission. Je passerai en tout et pour tout entre 7 et 14 jours dans chaque Préfecture ce qui comme vous l'imaginez représente un court laps de temps.

Quand nous nous rencontrerons, j'aimerai que nous discutions à propos des chimpanzés, si vous savez où ils sont les plus nombreux dans la Préfecture. J'aurai du temps pour visiter les zones que vous pensez les plus interessantes pour les chimpanzés et je serai capable de confirmer leur présence ou leur absence dans d'autres zones. Quoi qu'il en soit, comme il me faut de plus *dénombrer* les chimpanzés ,j'irai à pied le long de transects tracés au hasard dans des zones préalablement sélectionnées. Tout en marchant 5 kms en ligne droite, je pourrai compter les nids de chimpanzés, les empreintes d'animaux, etc, rencontrés et je serai en mesure de comparer les densités dans les différentes zones. Je serai également en mesure de faire la relation entre les animaux et les différents types d'habitats. Cela me sera utile lors de l'estimation de la densité de chimpanzés dans les zones que je n'aurai pas pu visiter, selon le type d'habitat existant. En résumé, la localisation et la densité des chimpanzés en Guinée,seront estimés grâce (1) aux informations

recueillies dans les questionnaires, (2) aux interviews des chasseurs dans les villages, (3) aux visites dans les zones m'ayant été désignées par vous comme importantes pour les chimpanzés, (4) aux données des transects placés au hasard à travers le pays.

Je vais discuter des places que je visiterai durant mon séjour avec les Chefs de Section Forestière. Je me rendrai ensuite à la Sous Préfecture la plus proche de la zone à visiter. Arrivée à la Sous Préfecture, je chercherai le Chef de Cantonnement. De là, j'irai au village le plus proche de la zone où se trouvent les chimpanzés. Au village, j'essaierai de trouver un chasseur pour m'accompagner dans la forêt. J'ai besoin d'un chasseur pour identifier les animaux à partir des traces, des cris, des chutes etc., et pour me rendre dans les forêts les plus connues pour leurs animaux sauvages. Il est plus facile de voir des animaux lorsque l'on est peu nombreux, c'est pour cela que je préfère aller dans la forêt seulement avec *un chasseur et un traducteur.* Il est aussi nécessaire qu'un agent de la DNFF *ne soit pas* présent lors du travail sur le terrain car je veux poser des questions dont les réponses pourraient être soumises à influence extérieure. Ces questions concernent l'attitude des populations envers les animaux, et les pratiques de chasse. Je veux qu'ils sachent que je suis ici pour les entendre et pas pour faire la police.

Je voudrai également souligner que je n'ai pas besoin de logement. Mes assistants et moi avons des tentes et de quoi faire la cuisine. Lorsque ce sera possible, j'aimerai dormir en brousse afin d'entendre les animaux pendant la nuit, qui ne sont pas visibles le jour.

Merci encore pour votre aide et j'espère vous rencontrer bientôt.

Sincèrement votre,

Rebecca Ham

Dr. Rebecca Ham

APPENDIX VII. LETTER ACCOMPANYING THE THIRD DISTRIBUTION OF THE QUESTIONNAIRES

République de Guinée
MINISTERE de L'AGRICULTURE de L'ELEVAGE et des FORETS
DIRECTION NATIONALE des FORETS et de la FAUNE

Union Européenne
Commission des Communautés Européennes
FONDS EUROPEEN DE DEVELOPMENT

PROJET B75040/VII/94/05
"PROJET DE CONSERVATION DES CHIMPANZES EN GUINEE"

DIRECTION NATIONALE DES FORETS ET DE LA FAUNE, B.P.624 Conakry

A Messieurs les
-Chefs de Sections Protection forestière et faune
-Chefs de Projets
-Chefs des Cantonnements Forestiers

Messieurs,

Dans le cadre de la mise en oeuvre du "Projet de Conservation des Chimpanzés en Guinée" je vous avais informé dans ma correspondance N°915/DNFF/du 20/12/95 que Dr.Rebecca Ham, assistante du projet et Janis Carter, chef du projet devraient travailler sur toute l'etendue du territoire national. À cet effet, l'execution du volet inventaire est basée sur un questionnaire qui vous a été adressé par la lettre N°0019/DNFF/du 8/01/96, dont quelques reponses ne nous sont pas encore parvenue.

Pour mener a bien cette action je vous demande impérativement de faire suite aux questionnaires que voici à partir du 15/07/96 date de rigueur.

J'attache une importance particulière au traitement de ce questionnaire car les futures mesures de conservation de la faune sauvage en Guinée en dependent.

Ci-joint, la liste des Préfectures n'ayant pas reagi au questionnaire.

PITA
LOLA
BEYLA
COYAH
MACENTA
KOUNDARA
KOUROUSSA
N'ZEREKORE
KISSIDOUGOU

LE DIRECTEUR NATIONAL ADJOINT

ELHADJ MASSA MAMADY KABA

APPENDIX VIII. HUNTER INTERVIEW

HUNTER INTERVIEW

Date:_____Préfecture:_____Sous-préfecture:_____ Zone: _____

Presence of chimpanzees? ☐Abundant ☐Common ☐Rare ☐Absent

If chimpanzees are ABSENT....

Have there ever been chimpanzees in this area? ☐YES ☐NO

If yes, how long ago did they disappear?_____

Why did they disappear?_____

Where is the closest place to here where chimpanzees can be found?_____

If chimpanzee are PRESENT....

What is the average size of the group of chimps you see?_____

What is the average size of the group of the nests you see?_____

Do you think the number of chimpanzees in this area is... ☐Increasing ☐ Decreasing ☐ Stable

Where do you usually see chimpanzees?_____

_____

Is the population ?☐Resident ☐Temporary

If it is temporary...Where do they go?_____

Why do they leave?_____

Do they change their location in the dry season/rainy season? ☐YES ☐NO

Location during dry season?_____

Location during rainy season?_____

If YES, why ?_____

Where is their water source? _____

Does this change with the season? ☐YES ☐NO

If YES... Location during dry season?_____

Location during rainy season?_____

Size of water source in the dry season? ☐Large ☐Medium ☐ Small

Quality of water source in the dry season? ☐Good ☐Poor

Are the chimps ever pests? ☐YES ☐NO

If YES...What time of year? _____

What do they eat?_____

Do they destroy crops, or just take a little?_____

What do you do when they are pests?_____

What other animals are pests?_____

What do you do when these animals are pests? _____

What are methods you use to prevent chimpanzees and other animals from being pests?_____

_____

_____

When you encounter chimpanzees, what do they do when they see you?_____

Are you scared of them? ☐YES ☐NO Comment?_____

Are people in the village scared of them? ☐YES ☐NO Comment?_____

Have people ever been attacked by the chimps? ☐YES ☐NO Comment?_____

Have you ever heard of anything killing chimps? (eg. Leopards, snakes) ☐YES ☐NO Comment?_____

Have you ever found a dead chimp? ☐YES ☐NO Cause of death?_____

Do people in this area hunt chimps? ☐YES ☐NO (☐ The hunter himself)

IF YES...Why?_____

What are your hunting methods?_____

_____

Have you ever heard of people selling baby chimps? ☐YES ☐NO (☐ The hunter himself)

If YES...Who are they sold to? _____

What is the price paid?_____

A mother chimp carries and stays close to her baby for many year? It must be difficult to capture a baby. How is this done?_____

Do you remember any stories told to you by your parents about chimps?_____

_____

_____

_____

ENVIRONMENTAL ASSESSMENT

FIRES: Are there bush fires here? ☐YES ☐NO

If YES, what time of year do you usually burn?_____

Why do you burn?_____

Is it uncontrolled burning or controlled burning? ☐Controlled ☐Uncontrolled

TOPOGRAPHY: ☐Flat ☐Undulating ☐Mountainous

VEGETATION:_____

HUMAN POPULATION DENSITY: ☐Low ☐Medium ☐High

On what scale are the following activities going on in this area?

Agriculture?	☐Small	☐Medium	☐Large
Hunting?	☐Small	☐Medium	☐Large
Fishing?	☐Small	☐Medium	☐Large
Cattle grazing?	☐Small	☐Medium	☐Large

HUNTER ASSESSMENT

Hunter's name:_____

Hunter's village:_____

Hunter's approximate age:_____

How frequently does he go hunting:_____

For how many years has he been a hunter in this area?_____

What language does he speak?_____

How literate is he?	☐Poor	☐Fair	☐Good
How intelligent is he?	☐Poor	☐Bright	☐Very bright
How good are his conservation ethic?	☐Poor	☐OK	☐Very good
How good is he with people?	☐Not very good	☐Good	☐Excellent
How gregarious is he?	☐Not very	☐Good	☐Excellent

How available would he be as a chimp monitor? ☐Not very ☐Medium ☐Large

What are his other occupations?_____

How interested is he in wildlife and the project? ☐Not very ☐OK ☐Very interested

Subjective feelings about the hunter as a chimp monitor (Gut scale) ☐Poor ☐Good ☐Excellent

Hunter's accuracy on	Tracks?	☐Poor	☐OK	☐Very good
	Faeces?	☐Poor	☐OK	☐Very good
	Nest age?	☐Poor	☐OK	☐Very good
	Vocalisations?	☐Poor	☐OK	☐Very good

SUMMARY OF AREA

_____

APPENDIX IX. QUESTIONNAIRE RESULTS

Present?	Question 1: yes or no
Quantity?	Question 5a: Abundant, Common, Rare or Absent
No.Groups	Question 5b
Individuals/group	Question 5c
Total No. Individuals	Question 5a
MIN	Calculated minimum possible number of chimpanzees
MAX	Calculated maximum number of chimpanzees
Dynamics	Question 5e: Increasing, Decreasing, Stable
No. Months	How many months the Chef de Cantonnement has worked in the Sous-Préfecture
VISIT FIELD	How often does the chef de cantonnement go into the field: each day (D), each week (W), each month (M)
NESTS	Question 2
AUDITION	Question 2
OBSERVATION	Question 2
KNOWN	Question 2
LOCALISED	Question 5d: yes or no
PRENC	Question 6: Permanent (P), Temporary (T), Seasonal (S)
VILLAGE	Question 7: yes or no
ATTITUDE	Question 9: Sentimental (S), Indifferent (I), Aggressive (A)
HUNTED?	Question 1 concerning hunting: Never (N), Almost never (AN), Rarely (R), Often (O)
MEAT EATEN?	Question 2a concerning hunting: yes or no
AMOUNT	Question 2 concerning hunting: Small (S), Medium (M), Large (L)
EXPORTED	Question 2c concerning hunting: yes or no

	PRÉFECTURE	SOUS-PRÉFECTURE	Present?	Quantity?	No. Groups?	Individuals /group?	Total No. Individuals?	MIN	MAX	Dynamics	No. Months	VISIT FIELD	NESTS	TRAIL	AUDITION	OBSERVATION	KNOWN	LOCALISED?	FRENC	VILLAGE	ATTITUDE	HUNTED?	MEAT EATEN?	AMOUNT	EXPORTED		
F	DALABA	BODIE	yes	Common	3	6 to 11	30	30	33	Increasing	11	W		1	1	1	1	YES	P	YES	I	N	NO		NO	BANGOURA	Amoumane
F	DALABA	DALABA CENTRE	yes	Rare	2	5	5	5	10	Increasing	24	W	1	1	1	1	1	NO	S	YES	S	N	NO		NO	SY	Mamadou
F	DALABA	DITIENN	yes	Common	8	4 to 6	xxxxx	32	48	Increasing	12	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BALDÉ	Abdourahéné
F	DALABA	KALA	yes	Common	2	xxxxx	xxxxx	49	107	Increasing	24	W	1		1		1	NO	P	YES	I	N	NO		NO	DIALLO	Alpha Oumar Alade
F	DALABA	KANKALABÉ	yes	Common	2	xxxxx	xxxxx	49	107	Increasing	60	W	1	1	1	1	1	YES	T	YES	I	N	NO		NO	POUNA	Mamga
F	DALABA	KEBALY	yes	Rare	3	xxxxx	xxxxx	16	19	Stable	24	W					1	YES	P	YES	A	R	NO		NO	DIALLO	Idrissa
F	DALABA	KOBA	yes	Abundant	Many	xxxxx	500 to 700	500	700	Increasing	12	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	SAKO	Fodé
F	DALABA	MAFARA	yes	Common	3	6	xxxxx	18	18	Increasing	12	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BAH	Baba Diogo
F	DALABA	MITY	yes	Rare	1	xxxxx	xxxxx	16	19	Increasing	12	W			1	1	1	NO	P	YES	I	N	NO		NO	TOUNKARA	Faya
F	DALABA	MONBEYAH	yes	Abundant	8	8 to 12	Hundreds	64	100	Increasing	12	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	DIALLO	Mamadou Gounkaïon
F	GAOUAL	POULAMORY	yes	Common	10 to 15	3 to 9	20 to 50	20	135	Increasing	24	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	DIALLO	Mamadou Korka
F	GAOUAL	GAOUAL CENTRE	yes	Abundant	Many	xxxxx	300	300	300	Increasing	144	M	1	1	1	1	1	NO	P	NO	I	N	NO		NO	LONGRI	M'Pegna
F	GAOUAL	KAKONY	yes	Abundant	xxxxx	4 to 15+	xxxxx	154	277	Increasing	36	M	1	1	1	1	1	YES	F	YES	I	R	NO		NO	BARRY	Lamé
F	GAOUAL	KOUMBIA	yes	Abundant	Many	10 to 20	xxxxx	154	277	Increasing	36	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	DIALLO	Telly
F	GAOUAL	KOUNSITEL	yes	Common	8	7 to 15	200	56	200	Stable	108	D	1	1	1	1	1	YES	P	YES	S	AN	NO		NO	DOUMBOUYA	Tépé Prospère
F	GAOUAL	MALANTA	yes	Common	3	20	50	50	60	Decreasing	48	W	1	1	1	1	1	YES	P	YES	I	N	NO			SOUMOUNOU	Mamé
F	GAOUAL	TOUBA	yes	Abundant	4	45	180	180	180	Decreasing	96	W	1	1	1	1	1	YES	P	YES	S	R	NO		NO	SIDIBÉ	Yero Bailo
F	GAOUAL	WENDOU M'BOURE	yes	Common	20	Many	Variable	49	107	Increasing	144	M	1	1	1	1	1	YES	P	YES	I	N	NO		NO	SIDIBE	Mamadou
F	KOUBIA	FAPAYA	yes	Common	13 to 16	4 to 6	80	52	96	Decreasing	24	D	1		1	1	1	YES	T	YES	A	AN	NO		NO	LY	Mamadou Saïou
F	KOUBIA	GADA-WOUNDOU	yes	Common	40	7 ou 9	320	280	360	Increasing	36	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BALDÉ	Ousmane Kankalabe
F	KOUBIA	KOUBIA CENTRE																								DOUMBOUYA	Yakouba
F	KOUBIA	MATAKAOU	no	Absent	0	0	0	0	0		84	D														CAMARA	Moussa Falessadé
F	KOUBIA	MISSIRA	yes	Common	2	15	15	15	30	Increasing	36	D	1					YES	T	YES	S	N	NO		NO	DIALLO	Alpha Mamadou Dalaba
F	KOUBIA	PILLIMINI	yes	Rare	1	20	20	20	20	Increasing	132	D	1	1	1	1	1	NO	S	YES	I	N	NO		NO	SY	Ibrahima
F	KOUNDARA	GUINGAN	yes	Common	Many	xxxxx	xxxxx	49	107	Increasing	48	W	1		1		1	YES	T	YES	S	N	NO		NO	DIALLO	Mamadou Dian Badiar
F	KOUNDARA	KAMABY	no	Absent	0	0	0	0	0		24	W														NINKETA	Niabaly Francois
F	KOUNDARA	KOUNDARA CENTRE	no	Absent	0	0	0	0	0		48	W														KEITA	Sayon
F	KOUNDARA	SAMBAILO																									
F	KOUNDARA	SAREBOIDO	yes	Common	2	xxxxx	xxxxx	49	107	Increasing	30	W		1	1	1	1	YES	T		I		NO		NO	BAH	Salio
F	KOUNDARA	TERMESSE																									
F	KOUNDARA	YOUKOUNKOUN																									
F	LABE	DALEIN	yes	Abundant	Indeterminate	2 to 20	100+	100	100	Increasing	44	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	BAH	Ibrahima
F	LABE	DARALABÉ	yes	Common	2	6	20	12	20	Increasing	54	W	1	1			1	YES	T	YES	I	AN	YES	5	NO		
F	LABE	DIARY	yes	Abundant	17	6 to 21	xxxxx	102	357	Increasing		W	1	1	1	1	1	YES	P	YES	I	N	NO			BALDÉ	Alpha Oumar
F	LABE	DIONFO	no	Absent	0	0	0	0	0		24	W							S	YES	I	N	NO		NO	BAH	Mamadou
F	LABE	GARAMBÉ	no	Absent	0	0	0	0	0		24	W														SYLLA	Sélou
F	LABE	HAFIA	no	Absent	0	0	0	0	0		44	W														BALDÉ	Mariame Diouldé
F	LABE	KALAN	yes	Common	1	14	14	14	14	Increasing	48	D	1		1	1	1	YES	S	YES	S	N	NO		NO	BAH	Macki Sadiga
F	LABE	KOURAMANGUI	yes	xxxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxx		24	D								YES	I	R	NO		NO	SAKHO	Fodé Abass
F	LABE	LABÉ CENTRE	no	Absent	0	0	0	0	0		24	W														DIABAYE	
F	LABE	NOUSSY	yes	Abundant	Many	2 to 17	100	100	100	Increasing	24	W	1	1	1	1	1	NO	P	NO	I	R	NO		NO	KALLO	
F	LABE	POPODARA	yes	Common	1	10 to 13	10 to 13	10	13	Increasing	36	W			1	1	1	YES	S	YES	I	AN	NO		NO	DIALLO	Sadou Kérouta
F	LABE	SANNOUN	no	Absent	0	0	0	0	0		60	W														KAMANO	Kemoko
F	LABE	TOUNTOUROUN	yes	Common	5	5 to 7	30	25	35	Increasing	24	W	1	1	1	1	1	NO	T	YES	I	N	NO		NO	BARRY	Madiou
F	LELOUMA	BALAYA	yes	Common	2	xxxxx	5	5	5	Decreasing	15	W	1		1	1	1	YES	T	YES	S	N	NO		NO	SOULARÉ	Mamga Tely
F	LELOUMA	DIOUNTOU	yes	Common	6	xxxxx	xxxxx	49	107	Increasing	36	W		1	1	1	1	YES	P	YES	I	N	NO		NO	BAH	Youssouma
F	LELOUMA	HÉRICO	yes	Common	4	8	xxxxx	32	32	Increasing	60	M			1	1	1	YES	P	YES	I	AN	NO		NO	DIALLO	Thierno Moussa
F	LELOUMA	KORBÉ	yes	Abundant	xxxxx	xxxxx	26	26	26	Increasing	120	M	1		1	1	1	YES	P	YES	I	AN	NO		NO	DOUNDOUYA	Kabinet
F	LELOUMA	LAFOU	yes	Rare	1	8	8	8	8	Decreasing	16	W	1	1		1	1	YES	T	YES	I	AN	NO		NO	DIALLO	Mamadou Saliou
F	LELOUMA	LÉLOUMA CENTRE	yes	Common	2	12 to 15	12 to 15	12	30	Decreasing	132	W	1	1	1	1	1	YES	T	YES	I	R	NO		NO	BAH	Oumar Tidiane
F	LELOUMA	LINSAN	yes	Common	4	20	50	50	80	Increasing	24	D	1	1	1	1	1	YES	P	YES	I	R	YES	5	NO	CAMARA	Yakouba
F	LELOUMA	MANDA SARAN	yes	Common	1	70 to 150	150	70	150	Increasing	36	W	1		1	1	1	YES	P	YES	I	N	NO		NO	DIALLO	Dian Ousy
F	LELOUMA	PARAWOL	yes	Common	2	6	6	6	12	Increasing	16	W			1	1	1	NO	T	NO	I	AN	NO		NO	LOUA	Niampira-Pé
F	LELOUMA	SAGALÉ	yes	Abundant	4	30 to 35+	xxxxx	120	220	Increasing	15	W	1		1		1	NO	P	YES	I	AN	NO		NO	BARRY	Ousmane Loppé
F	LELOUMA	THIAGUEL BORY	yes	Common	3	xxxxx	xxxxx	49	107	Increasing	84	W					1	YES		YES	S	N	NO		NO	KEITA	Soumoumou
F	MALI	BALAKI	yes	Abundant	Many	2 to 12	xxxxx	154	277	Increasing		D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	KEITA	Simbora
F	MALI	DOUGOUNTOUNY	yes	Common	4	30 to 40	120	120	160	Increasing		W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	CONDE	Karifa
F	MALI	DOUNGUEL SIGON																									
F	MALI	POUGOU	no	Absent	0	0	0	0	0		33	W														TOINO	Saa Emmanuel Tongui
F	MALI	GAYA	yes	Abundant	xxxxx	xxxxx	xxxxx	154	277	Increasing	16	W		1	1		1	YES	P	YES	I	N	NO		NO	KOUYATI	Lancine
F	MALI	HYDAYATOU	yes	Rare	4	2 to 3	6 to 8	6	12	Decreasing	36	W	1	1	1	1	1	YES	P	YES	A	R	YES	5	NO	KEITA	Ibrahima Sory
F	MALI	LÉBÉKERÉ	yes	Abundant	5	20	50+	50	100	Increasing	24	D	1	1	1	1	1	YES	T	YES	I	N	NO		NO	DIALLO	Yero Mamby
F	MALI	MADINA SALANBADE	yes	Common	2	4	10	8	10	Stable	18	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	LÉNO	Tamba
F	MALI	MADINA WORA	yes	Rare	xxxxx	xxxxx	xxxxx	16	19		120	W			1		1		P	NO	S	N	NO		NO	BAHAMOU	Nyan Jacques
F	MALI	MALI CENTRE	yes	Common	2	4	10	8	10	Increasing	36	M					1	YES	T	NO	I	N	NO		NO	KOI	Gouvogui
F	MALI	TÉLIRE	yes	Common	3	xxxxx	xxxxx	49	107	Increasing	20	M	1	1	1	1	1	YES	P	YES	S	N	NO		NO	BAH	Ibrahima
F	MALI	TOUBA BAGADADJI	yes	Common	4	10	40	40	40	Stable	36	W	1	1	1	1	1	YES	T	YES	I	AN	NO		NO	MAROUF	Sékané
F	MALI	YEMBERING	yes	Common	5	4	20	20	20		24	W	1	1	1	1	1	YES	T	YES	S	N	NO		NO	BALDÉ	Ousmane
F	MAMOU	BOULIWEL	yes	Common	6	50 to 60	500	300	500	Increasing	36	W	1	1	1	1	1	YES	T	YES	I	N	NO		NO	BAH	Abdoulaye

F	MAMOU	DOUNET	yes	Rare	4	20	90	80	90	Decreasing	60	M					1	YES	P	YES	A	N	NO		NO	KEITA	Cheick Oumar Tidiane
F	MAMOU	GONGORE	yes	Common	2	30	60	60	60	Decreasing	36	D	1	1	1	1	1	YES	T	YES	I	R	NO		NO	SYLLA	Todi Mohamed
F	MAMOU	KEGNEKO	yes	Common	5	20	100	100	100	Increasing	72	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BAH	Mamadou
F	MAMOU	KONKOURE	yes	Common	Many	10	xxxxx	49	107	Decreasing	48	W		1	1	1	1	YES	P	YES	A	R	NO		NO	DIAKITE	Sekou
F	MAMOU	MAMOU CENTRE	yes	Common	15	25	700	375	700	Increasing	36	M	1	1	1	1	1	YES	S	YES	I	AN	NO		NO	SAMBY	
F	MAMOU	NIAGARA	no	Absent	0	0	0	0	0		30	W														BARRY	Almamy Oumar
F	MAMOU	OURE KABA	yes	Common	7 to 10	20 to 30+	600	140	600	Increasing	120	W	1	1	1	1	1	NO	P	YES	I	AN	NO		NO	DIALLO	Alseny
F	MAMOU	PORE DAKA	yes	Common	5	8 to 10	30 to 50	30	50	Increasing	36	W	1	1	1	1	1	YES	T	YES	S	N	NO		NO	DIALLO	Mamadou Yacine
F	MAMOU	SARAMOUSSAYA	yes	Common	1	30	30	30	30	Decreasing	36	W	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BARRY	Oumar Bun
F	MAMOU	SOYA	yes	Common	28	2 to 15	80	56	420	Increasing	48	D	1	1	1	1	1	YES	T	YES	I	AN	NO		NO	CAMARA	Lansana Fanta
F	MAMOU	TEGUEREYA	yes	Common	xxxxx	xxxxx	xxxxx	49	107	Increasing	36	M	1	1	1	1	1	NO	P	YES	I	N	NO		NO	DIALLO	Alseny
F	MAMOU	TIMBO	yes	Common	5	20 to 25	100	100	125	Increasing	24	D	1	1	1	1	1	YES	T	YES	I	N	NO		NO	SIDIBE	Sanciné
F	MAMOU	TOLO	yes	Common	1	xxxxx	xxxxx	49	107	Decreasing	36	W		1	1	1	1	YES	T	YES	I	R	YES	S	NO	DIALLO	Diamilatou
F	PITA	BANTIGUEL	no	Absent	0	0	0	0	0		168	W														BARRY	Kame
F	PITA	BOUROUWAL TAPE	yes	Rare	1	17	17	17	17	Increasing	60	W			1		1	NO	T	YES	I					DIALLO	Abdoul Gadiry
F	PITA	DONGHOL TOUMA	yes	Common	4	10	40	40	40	Increasing	36	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	DIALLO	Mamdou Moussa
F	PITA	GONGORE	yes	Abundant	12	7 to 8	80	80	96	Increasing	132	M						YES	P	YES	S	N	NO		NO	DOPAVOIGUI	Siba
F	PITA	LEY MIRO	yes	Common	5	xxxxx	62	62	62	Increasing	96	W	1		1	1	1	YES	P	YES	I	N	NO		NO	DIALLO	Mohamed
F	PITA	MACI	yes	Abundant	12	20 to 30	380	240	380	Increasing	48	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	KABA	Amara
F	PITA	NINGUELANDÉ	yes	Rare	4	xxxxx	40	40	40	Increasing	36	W					1	YES	P	YES	I	N	NO		NO	SIDIBE	Mamadou
F	PITA	PITA CENTRE	yes	Rare	1	4	4	4	4	Decreasing	144	W			1	1	1	NO	S	YES	A					CAMARA	Thierno
F	PITA	SANGAREYA	yes	Abundant	6	5 to 15	100	30	100	Increasing	108	W	1		1	1	1	YES	P	YES	S	N	NO		NO	BAH	Mamadou Dioulde
F	PITA	SINTALY	no	Absent	0	0	0	0	0		24	W														BAH	Alpaudou Bailo
F	PITA	TIMBI MADINA	yes	Rare	1	20	20	20	20	Increasing	36	W					1	NO	T	NO	I	N	NO		NO	BARRY	Amadou
F	PITA	TIMBI TOUNNI	yes	Rare	3	3 to 5	9	9	15	Decreasing	84	D					1	YES	T	YES	I					CAMARA	Mamadou
F	TOUGUE	FATAKO	yes	Common	xxxxx	xxxxx	150	150	150	Increasing	156	M	1		1	1	1	YES	P	YES	I	AN	NO		NO	BALDÉ	Mamadou Yero
F	TOUGUE	FELLO KOUNDOUMA	yes	Common	6	15	50	50	90	Increasing	1	D			1	1	1	NO	T	YES	I	AN	YES	S	NO	NYANKOYE	Niera
F	TOUGUE	KANSAGUI	yes	Abundant	xxxxx	xxxxx	Hundreds	154	277	Increasing	12	W	1	1	1	1	1	NO	P	YES	I	N	NO		NO	BALDÉ	Alpha Oumar Kora
F	TOUGUE	KOIN	yes	Common	4	xxxxx	Hundreds	49	107	Increasing	36	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	BALDÉ	Magarious
F	TOUGUE	KOLLAGUI																									
F	TOUGUE	KOLLET	yes	Common	35	4 to 10	245	140	350	Decreasing	132	W	1	1	1	1	1	NO	T	NO	S	N	NO		NO	BALDÉ	Oumar
F	TOUGUE	KONAH	yes	Common	xxxxx	5	xxxxx	49	107	Increasing	24	M	1	1	1	1	1	NO	T	YES	I	N	NO		NO	KEITA	Sadio
F	TOUGUE	KOURATONGO	yes	Common	7	5+	xxxxx	35	35	Increasing	36	W	1	1	1	1	1	NO	P	YES	I	N	NO		NO	BALDÉ	Mamadou Bailty
F	TOUGUE	TANGALY	yes	Abundant	2	4 to 5	4 to 5	4	10	Increasing	8	W	1	1	1	1		YES	P	YES	S	N	NO		NO	DIALLO	Sadjouma
F	TOUGUE	TOUGUE CENTRE	yes	Common	xxxxx	10 to 15	xxxxx	49	107	Increasing	48	M	1	1	1	1	1	NO	T	YES	I	AN	NO			SOUMAH	Fode Ismaël
GF	BEYLA	BEYLA CENTRE	no	Absent	0	0	0	0	0																	ZAORO	Réné
GF	BEYLA	BOLLA	no	Absent	0	0	0	0	0																	KOUROUMA	Mamady
GF	BEYLA	DIARAGUETELA	no	Absent	0	0	0	0	0																	OUO-OUO	Koua
GF	BEYLA	DIASSOUDOU	no	Absent	0	0	0	0	0																	DIARRA	Bayo
GF	BEYLA	FOUALA	no	Absent	0	0	0	0	0																	KOUROUMA	Damen
GF	BEYLA	GBAKEDOU	no	Absent	0	0	0	0	0																	BEAVOGUI	Pero
GF	BEYLA	GBESSOBA	no	Absent	0	0	0	0	0																	DINEPOLO	Doré
GF	BEYLA	KARALA	no	Absent	0	0	0	0	0																	DOUMDOUYA	Bakary
GF	BEYLA	KOUMANDOU	no	Absent	0	0	0	0	0																	JANIAFA	Thea
GF	BEYLA	MOUSSADOU	no	Absent	0	0	0	0	0																	KOUROUMA	Lancine
GF	BEYLA	NIONSOMORIDOU																									
GF	BEYLA	SAMANA	no	Absent	0	0	0	0	0																	KOBANY	Traore Moussa
GF	BEYLA	SINKO	no	Absent	0	0	0	0	0																	KOIVOGUI	Gbade
GF	BEYLA	SOKOURALA	no	Absent	0	0	0	0	0																	BAKARY	Kandé
GF	GUECKÉDOU	BOLODOU	yes	Common	4	5 to 10	25	20	40	Decreasing	12	W		1	1	1	1	YES	S	YES	I	R	YES	M	NO	CAMARA	Alhassane
GF	GUECKÉDOU	FANGAMADOU	yes	Rare	xxxxx	xxxxx	xxxxx	16	19	Decreasing	24	D						NO	S	YES	A	N	YES	S	NO	TRAORE	Ibrahima
GF	GUECKÉDOU	GUEKEDOU CENTRE																									
GF	GUECKÉDOU	GUENDEMBOU	yes	Rare	3	xxxxx	xxxxx	16	19	Decreasing	12	D					1	YES	S	YES	A	R	YES	S	NO	CAMARA	N'Faliu
GF	GUECKÉDOU	KASSADOU																									
GF	GUECKÉDOU	KOUNDOU	no	Absent	0	0	0	0	0		18	W														CAMARA	Niankoye
GF	GUECKÉDOU	NONGOA	no	Absent	0	0	0	0	0		19	W														DIALLO	Thierno Hady
GF	GUECKÉDOU	OUENDÉ KENEMA	yes	Rare	1	xxxxx	5 to 10	5	10	Decreasing	21	W			1	1	1	YES	S	YES	A	O	YES	M	NO	KOMARA	Marigbé
GF	GUECKÉDOU	TÉKOULO	yes	Common	1	20	20	20	20	Increasing	20	W		1	1	1	1	YES	P	YES	S	N	NO		NO	KAMBY	Niagosso
GF	GUECKÉDOU	TEMESSADOU	yes	Common	3	xxxxx	20	20	20	Decreasing	24	W	1				1	YES	T	YES	A	O	YES	M	NO	TRAORE	Sekou Mamoudou
GF	KISSIDOUGOU	ALBADARIA																									
GF	KISSIDOUGOU	BANAMA																									
GF	KISSIDOUGOU	BARDOU																									
GF	KISSIDOUGOU	BEENDOU																									
GF	KISSIDOUGOU	FERMESSADOU																									
GF	KISSIDOUGOU	FIRIAWA																									
GF	KISSIDOUGOU	GBANDADOU																									
GF	KISSIDOUGOU	KISSIDOUGOU CENTRE																									
GF	KISSIDOUGOU	KONDIADOU																									
GF	KISSIDOUGOU	MANFRAN																									
GF	KISSIDOUGOU	SANGARDOU																									
GF	KISSIDOUGOU	YENDÉ MILLIMOU																									
GF	KISSIDOUGOU	YOMBIRO																									
GF	LOLA	BOSSOU	yes	Common	2	18	26	26	36	Increasing	48	W	1	1	1	1	1	YES	P	YES	S	O	YES	S	NO	LAMAH	Zaoro
GF	LOLA	FOUMBADOU	yes	Rare	1	xxxxx	xxxxx	16	19	Increasing	3	W			1		1	YES	T							FANGANA	Dore
GF	LOLA	GAMA	no	Absent	0	0	0	0	0																	CAMARA	Lansana

GF	LOLA	GUEASSO																									
GF	LOLA	KOKOYA	no	Absent	0	0	0	0	0		24	D														LOUA	Marcel Antoine
GF	LOLA	LAINE	no	Absent	0	0	0	0	0		6	D														KALA	Lamah
GF	LOLA	LOLA CENTRE	no	Absent	0	0	0	0	0		4	W														TÉCÉ	Bekamu Kolie
GF	LOLA	N'ZOO	yes	Common	xxxxx	xxxxx	xxxxx	49	107	Increasing	36	W		1	1		1		P							CÉCÉ	Dure
GF	LOLA	TOUNKARATA	no	Absent	0	0	0	0	0		4	D														DOUNAMOU	Pépé
GF	MACENTA	BALIZIA																									
GF	MACENTA	BINIKALA																									
GF	MACENTA	BOFOSSOU																									
GF	MACENTA	DARO																									
GF	MACENTA	FASANKONY																									
GF	MACENTA	KOUANKAN																									
GF	MACENTA	KOYAMAH																									
GF	MACENTA	MACENTA CENTRE																									
GF	MACENTA	N'ZÉBÉLA																									
GF	MACENTA	OREMAI																									
GF	MACENTA	PANZIAZOU																									
GF	MACENTA	SENGBEDOU																									
GF	MACENTA	SEREDOU																									
GF	MACENTA	VASSEREDOU																									
GF	MACENTA	WATANKA																									
GF	NZEREKORE	BOUNOUMOU	yes	Common	1	5	5	5	5	Increasing	3	W					1	YES	S	NO	I	N	NO		NO	GONLA	Pépé
GF	NZEREKORE	GOUECKE	no	Absent	0	0	0	0	0		3	W														GOEPOGUI	Joseph Pogba
GF	NZEREKORE	KOBELA	yes	Rare	1	10	10	10	10	Decreasing	5	D	1	1	1	1	1	YES	T	NO	A	AN	YES	S	NO	KOUROUMA	Nuza Celestin
GF	NZEREKORE	KOROPARA	no	Absent	0	0	0	0	0		4	M														KOIVOGUI	Oua
GF	NZEREKORE	KOULÉ	no	Absent	0	0	0	0	0		5	W														GBAMOU	Nyaeckc
GF	NZEREKORE	N'ZÉRÉKORÉ CENTRE	no	Absent	0	0	0	0	0																	DIALLO	Ousmane Sadio
GF	NZEREKORE	PALÉ	no	Absent	0	0	0	0	0																	HAMADY	Gilimou
GF	NZEREKORE	SAMOÉ	no	Absent	0	0	0	0	0		8	W															
GF	NZEREKORE	SOULOUTA	yes	Common	xxxxx	xxxxx	xxxxx	49	107		4	W		1				YES								GUILAVOGUI	Mathos
GF	NZEREKORE	WOMEY	yes	Rare	1	xxxxx	xxxxx	16	19	Decreasing	3	W					1	YES	S								
GF	NZEREKORE	YALENZOU	no	Absent	0	0	0	0	0		12	D														KOBANY	Tasoré Fadouba
GF	YOMOU	BANIE	no	Absent	0	0	0	0	0		11	W														BILIVOGUI	Marcel
GF	YOMOU	BEHTA	no	Absent	0	0	0	0	0		24	W														BALAMOU	CÉCÉ
GF	YOMOU	BIGNAMOU	yes	Common	2	xxxxx	xxxxx	49	107	Increasing	24	D			1		1	YES	P	NO	I	N	NO		NO	KOURA	Koroume
GF	YOMOU	BOWÉ	no	Absent	0	0	0	0	0																	BAMGALY	Cisse
GF	YOMOU	DIÉCKÉ	yes	Common	20	8 to 10	200	160	200	Increasing	7	W	1	1	1	1	1	YES	S	NO	S	AN	NO		NO	KOLIE	Eugene
GF	YOMOU	FELA	no	Absent	0	0	0	0	0		36	D														HABA	Nyankoye
GF	YOMOU	YOMOU CENTRE	no	Absent	0	0	0	0	0																		
GM	BOFFA	BOFFA CENTRE	yes	Common	4	xxxxx	xxxxx	49	107	Increasing	24	W	1	1	1	1	1	YES	T	YES	I	N	NO		NO	BARRY	Alpha Sadialiou
GM	BOFFA	DOUPROU	yes	Common	7	5 to 7	50	35	50	Increasing	60	W	1	1	1	1	1	YES	T	YES	A	R	YES	S	NO	MANIKO	Kamano
GM	BOFFA	KOBA	no	Absent	0	0	0	0	0		3	W														KANIMOU	Tima
GM	BOFFA	KOLIA	yes	Common	6	4 to 10	14	14	60	Increasing	36	W	1	1	1	1	1	YES	P	YES	I		NO		NO	MOUSTAPHA	Sané
GM	BOFFA	LISSO	yes	Common	9	10 to 12	10 to 12	10	108	Increasing	60	W	1	1	1	1	1	YES	P	YES	A	AN	YES	S	NO	DIALLO	Mamadou Salisu Alpha
GM	BOFFA	MANKOUNTAN																									
GM	BOFFA	TAMITA	yes	Common	4	2 to 30	50	8	120	Decreasing	36	W	1	1	1	1	1		T		A	AN	YES	S	NO	KEITA	Yaya
GM	BOFFA	TOUGNIFILY	yes	Common	7 to 10	5 to 10	5 or 8	5	100	Increasing	96	W	1	1	1	1	1	YES	P	YES	A	AN	YES	S	NO	BAH	Ahmed Tidiane
GM	BOKÉ	BINTIMODIA																									
GM	BOKÉ	BOKÉ CENTRE	yes	Rare	5 to 6	2	5 to 6	5	12	Stable	132	M		1	1	1	1	YES	P	YES	I	R	NO		NO	SOUMAH	Mamadouba Momoya
GM	BOKÉ	DABISS	yes	Abundant	xxxxx	xxxxx	xxxxx	154	277	Increasing	24	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	CAMARA	Ousmane
GM	BOKÉ	KAMSAR																									
GM	BOKÉ	KANFARANDÉ																									
GM	BOKÉ	KOLLABOUI																									
GM	BOKÉ	MALAPOUYA																									
GM	BOKÉ	SANGAREDI	yes	Common	Plusieurs	2 to 8	xxxxx	49	107	Decreasing	30	M	1	1	1	1	1	NO	P	YES	I	AN	NO		NO	DIALLO	Ahmed Sidy
GM	BOKÉ	SANSALÉ	yes	Common	11	3 to 8	130	33	130	Increasing	24	W	1	1	1	1	1	YES	P	YES	S	AN	YES	S	NO	MAMY	Jean-Bekela
GM	BOKÉ	TANÉNÉ	yes	Common	7 to 8	8 to 10	70 to 80	56	80	Decreasing	60	W	1	1	1	1	1	NO	S	YES	I	R	YES	S	NO	SANE	Aramousa
GM	COYA	COYA CENTRE																									
GM	COYA	KOURIA																									
GM	COYA	MANEAH																									
GM	COYA	WONKIPONG																									
GM	DUBREKA	BADY	yes	Rare	1	6	6	6	6	Decreasing	36	W				1	1	YES	P	YES	I				NO	DIALLO	Mamadou Dian
GM	DUBREKA	DUBREKA CENTRE	yes	Abundant	2	15	30	30	30	Increasing	12	D	1	1	1	1	1	YES	P	YES	I	R	YES	S	NO	CAMRA	Alias
GM	DUBREKA	FALESSADE																									
GM	DUBREKA	KRORIRA	yes	Common	2	15+	30	30	30	Increasing	24	D			1	1	1	YES	P	YES	I	AN	YES	S	NO	MALEKE	Mamy
GM	DUBREKA	OUASSOU	yes	Common	4	6 to 10	30	24	40	Decreasing		D	1	1	1	1	1	YES	P	YES	A	N	YES	S	NO		
GM	DUBREKA	TANENÉ	yes	Abundant	3	xxxxx	5	5	5	Decreasing	14	M			1		1	NO	P	YES	A	R	YES	M	NO	TOURÉ	Moncydou
GM	DUBREKA	TONDON	yes	Rare	6	15	xxxxx	90	90	Decreasing	120	D	1	1	1	1	1	YES	T	YES	I	AN	YES	S	NO	DIOULDÉ	Yall Amadou
GM	FORECARIAH	ALASSOYAH	yes	Rare	3	5	15	15	15	Decreasing	36	W		1	1	1	1	NO	T	YES	A	R	YES	S	NO	CAMARA	Alpha
GM	FORECARIAH	BENTY	yes	Common	1	Many	Many	49	107	Increasing	24	W			1		1	YES	S	YES	I	N	NO		NO	SYLLA	Maby Laye Moussa
GM	FORECARIAH	FARMORIAH	yes	Common	3	Variable	30	30	30	Increasing	84	W		1	1	1	1	YES	P	YES	I	N	NO		NO	TOURA	Kerfalla
GM	FORECARIAH	FORECARIAH CENTRE	no	Absent	0	0	0	0	0		120	W														KAMANO	Kassy
GM	FORECARIAH	KABACK	no	Absent	0	0	0	0	0		72	W														SYLLA	Lamane
GM	FORECARIAH	KAKOSSA	no	Absent	0	0	0	0	0		36	W														KEITA	Amadou Fissadou
GM	FORECARIAH	KALIAH	yes	Rare	4	3	12	12	12	Decreasing	48	W	1	1			1	NO	T	YES	I	N	NO		NO	BARRY	Hamidou

GM	FORECARIAH	MAFERINYAH	yes	Rare	3	6	15	15	18	Decreasing	36	W					1	NO	T	YES	A	R	YES	S	NO	MIYOUNA	Elie
GM	FORECARIAH	MOUSSAYAH	yes	Common	1	20	20	20	20	Increasing	84	D	1	1	1	1	1	YES	P	YES	A	N	NO		NO	DIALLO	Cherif
GM	FORECARIAH	SIKHOUROU	yes	Common	xxxxx	xxxxx	30 to 40	30	40	Increasing	84	W	1	1	1	1	1	YES	P	YES	A	R	YES	S	NO	KOIVOGUI	Koikoi
GM	FRIA	BAGUINET	yes	Common	5	5 to 10	10	10	50	Decreasing	108	W			1		1	YES	T	YES	A	O	YES	M	NO	DIALLO	Baboucar Sidi
GM	FRIA	BANGUIGNY	yes	Common	14	5 to 7	70 to 100	70	100	Increasing	48	M	1	1	1	1	1	YES	P	YES	I	N	NO		NO	DIALLO	Mamadou
GM	FRIA	FRIA CENTRE	yes	Rare	2 to 3	3 to 4	3 to 4	3	12	Decreasing	36	W	1		1		1	NO	S	YES	A	O	YES	M	NO	BARRY	Baboucar
GM	FRIA	TORMELIN	yes	Common	1	xxxxx	xxxxx	49	107	Decreasing	48	W	1	1	1	1	1	YES	P	YES	I	O	YES	M	NO	SACK	Mamadou
GM	KINDIA	BANGOUYA	yes	Common	xxxxx	xxxxx	20	20	20	Increasing	36	W	1	1	1	1	1		T	YES	I	R	NO		NO	SOW	Ibrahima Kaba
GM	KINDIA	DANNAKANYA	no	Absent	0	0	0	0	0		36	W														SOUMAH	Sény
GM	KINDIA	FRIGUIABÉ	yes	Rare	xxxxx	xxxxx	xxxxx	16	19	Stable	1	W		1	1			NO	T	YES	I	AN	NO		NO	SOUMA	Seny
GM	KINDIA	KINDIA CENTRE																									
GM	KINDIA	KOLLENTÉ	yes	Common	xxxxx	10 to 20	xxxxx	49	107	Decreasing	24	W	1				1	YES	S	YES	I	R	YES	S	NO	CAMARA	Mamadouba
GM	KINDIA	MADINA OULA	yes	Common	xxxxx	xxxxx	100	100	100	Increasing	36	W	1	1	1	1	1		P	YES	I	R	NO			BALDÉ	Mamadou Hady
GM	KINDIA	MANBIA	yes	Rare	2	4	8	8	8	Decreasing	48	W		1	1		1	YES	T	YES	S	R	NO		YES	BOUGOURA	Mohamed Saliou
GM	KINDIA	MOLATA	yes	Common	3	xxxxx	xxxxx	49	107	Increasing	36	W			1	1	1	NO	S	YES	A	O	NO		YES	SANO	Souatou
GM	KINDIA	SANAYA	yes	Abundant	8	5,7,9	50	40	72	Increasing	36	W			1	1	1	NO	P	YES	I	R	NO		NO	TOUNKARA	Souba
GM	KINDIA	SOUGUETA	yes	Rare	3	7 to 15	20	20	45	Decreasing	28	W	1	1	1	1	1	YES	T	YES	A	O	YES	S	NO	KOUROUMA	Adama
GM	TELIMÉLÉ	BOUROUWAL	yes	Common	xxxxx	6 to 8	xxxxx	49	107	Increasing	12	W			1	1	1	YES	S	YES	I	N	NO			DIALLO	Oumar Bailo
GM	TELIMÉLÉ	DARAMAGNAKI	yes	Abundant	xxxxx	2 to 15	100	100	100	Increasing	36	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO		
GM	TELIMÉLÉ	GOUGOUDÈ	yes	Rare	xxxxx	1 to 10	10	10	10	Increasing	120	D	1		1	1		NO	S	YES	S	AN	YES	S	NO	FOINKÉ	
GM	TELIMÉLÉ	KOBA	yes	Abundant	Many	Many	Many	154	277	Increasing		D	1	1	1	1	1	NO	P	YES	S	AN	NO		NO	BALDÉ	Ibrahima Lamine
GM	TELIMÉLÉ	KOLLHI	yes	Common	5	11	55	55	55	Increasing	36	D	1	1	1	1	1	YES	P	YES	I	AN	NO		NO	KOUROUMA	N'Faly
GM	TELIMÉLÉ	KONSOTAMI																									
GM	TELIMÉLÉ	MISSIRA	yes	Abundant	36	30+	1000+	1000	1080	Increasing	48	W	1	1	1	1	1	YES	P	YES	I	R	NO		NO	DIALLO	Mamadou Dioulde
GM	TELIMÉLÉ	SANTOU	yes	Abundant	10	6,7,8	100	60	100	Increasing	79	D	1	1	1	1	1	NO	P	YES	I	N	NO		NO	KANTÉ	Aboubacar
GM	TELIMÉLÉ	SAREKALY																									
GM	TELIMÉLÉ	SINTA	yes	Common	4	xxxxx	150	150	150	Increasing	48	W	1	1	1	1	1	YES	T	YES	I	AN	NO		NO	DIALLO	Moussa
GM	TELIMÉLÉ	SOGOLON																							NO		
GM	TELIMÉLÉ	TARIHOYÉ	yes	Abundant	Many	35 to 40+	850	850	850	Increasing	132	W	1	1	1	1	1	YES	P	YES	S	AN	YES	S	NO	DOUMBOUYA	
GM	TELIMÉLÉ	TÉLEMÉLÉ CENTRE	yes	Common	Many	2,3 to 20	50 to 200	50	200	Increasing	144	M	1	1	1	1	1	YES	S	YES	A	R	NO		NO	DANSOKO	Mamadou
GM	TELIMÉLÉ	TYONTYAN																									
HG	DABOLA	ARFAMOUSSAYA	yes	Rare	2	4 to 6	8	8	12	Decreasing	60	D		1	1	1	1	NO	S	YES	I	N	NO		NO	TRAORE	Alpha
HG	DABOLA	BANKO	yes	Abundant	5	10	50	50	50	Increasing	8	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	CONDÉ	
HG	DABOLA	BISSIKIRIMA	yes	Abundant	4	8 to 12	50	32	50	Increasing	20	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	KANTA	Namakoro
HG	DABOLA	DABOLA CENTRE	yes	Common	10	4 to 10	40 to 100	40	100	Increasing	120	D	1		1	1	1	YES	P	YES	I	N	NO		NO	LAMAH	Kolyko
HG	DABOLA	DOGOMET	yes	Abundant	Many	5 to 17	3 to 21	3	21	Increasing	20	W			1	1	1	YES	P	YES	I	N	NO		NO	KPAMY	Nestor
HG	DABOLA	KANKAMA	yes	Abundant	Many	10	Many	154	277	Increasing	120	D	1	1	1	1	1	YES	P	YES	I	N	YES	S	NO	DIAWARA	Karifa
HG	DABOLA	KINDOYE	yes	Common	2	5 to 7	7	7	14	Increasing		W	1	1		1	1	YES	T	YES	I	N	NO		NO	DIALLO	Aliou Telly
HG	DABOLA	KONINDOU	yes	Common	4	2 to 6	2 to 6	2	24	Increasing		W	1	1		1	1	YES	T	YES	I	N	NO		NO	KEITA	Salion Bailo Trandyé
HG	DABOLA	N'DÉMA	yes	Common	4	2 to 3	xxxxx	8	12	Increasing	42	W				1	1	NO	T	YES	S	AN	NO		NO	CAMARA	Morkion
HG	DINGUIRAYE	BANORA	yes	Rare	xxxxx	2 to 5	12 to 14	12	14	Increasing	24	W		1	1	1		YES	S	YES	I	N	NO		NO	CAMARA	Lamine
HG	DINGUIRAYE	DIALAKORO	yes	Common	2	25	50	50	50	Increasing	129	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	SAGJO	Siddié Abdoulaye Sadjo
HG	DINGUIRAYE	DIATIFERE	yes	Common	11	3 to 30	1300	33	1300	Decreasing	48	D	1	1	1	1	1	YES	P	YES	I	N	NO		NO	DELAMOU	Ouo-Ouo Jacob
HG	DINGUIRAYE	DINGUIRAYE CENTRE	yes	Abundant	10 to 50	10	Indeterminate	100	500	Increasing	168	W		1	1	1	1	YES	P	YES	A	O	NO		NO	MACKY	GAK
HG	DINGUIRAYE	GAGNAKALY	yes	Common	10	xxxxx	10	10	10	Increasing	12	W	1		1		1	NO	T	YES	I	N	NO		NO	OUA	Koivogui
HG	DINGUIRAYE	KALINKO	yes	Abundant	9	25 to 30	2300	225	2300	Increasing	8	W	1	1	1	1	1	YES	P	YES	S	N	NO		NO	DIALLO	Mamadou Sarifou
HG	DINGUIRAYE	LANSANAYA	yes	Abundant	5 to 6	2 to 8	25 to 30	10	48	Increasing	36	D	1	1	1	1	1	YES	P	YES	I	R	NO		NO	DIALLO	Bemba Abdame
HG	DINGUIRAYE	SELOUMA	yes	Abundant	3	3 to 4	10 to 15	9	15	Increasing	156	D	1	1	1	1	1	YES	P	YES	S	N	NO		NO	NDIAYE	Tidiane
HG	FARANAH	BANIAN																									
HG	FARANAH	BEINDOU	yes	Abundant	Many	6 to 20	xxxxx	154	277	Increasing	8	D	1	1	1	1	1	YES	P	NO	S	R	YES	S	NO	CAMARA	Ibrahima
HG	FARANAH	FARANAH CENTRE	yes	Common	xxxxx	2 to 3	30	30	30	Decreasing	48	M			1		1	NO	S	NO	I	N	NO		NO	MAGADDOULIA	Mariane
HG	FARANAH	HERIMAKONO																									
HG	FARANAH	KOBIKORO	yes	Abundant	Many	2 ou 3	xxxxx	154	277	Decreasing	36	W	1	1	1	1	1	YES	T	YES	S	AN	YES	M	NO	BARRY	Mamadou Alpha
HG	FARANAH	MARELA																									
HG	FARANAH	NIALIA																									
HG	FARANAH	PASSAYA																									
HG	FARANAH	SANDENIA	yes	Common	Many	4 to 12	10 to 80	10	80	Increasing	12	D	1	1	1	1	1	YES	P	YES	A	R	YES		NO	SAMOURA	Demba
HG	FARANAH	SONGOYAH	no	Absent	0	0	0	0	0		7	D														FANFIDY	Kandé
HG	FARANAH	TIRO																									
HG	KANKAN	BALANDOU	no	Absent	0	0	0	0	0																	CAMARA	Facely
HG	KANKAN	BATÉNAFADJI	no	Absent	0	0	0	0	0		16	D														OUENDENO	Benoit Yombo
HG	KANKAN	BEREDOU-BARANAMA	no	Absent	0	0	0	0	0		36	D														SANGARE	Abdoulaye
HG	KANKAN	BOULA	yes	Rare	1	6	6	6	6	Decreasing	12	W	1	1			1	YES	P	YES	A	O	YES	M	NO	KOUROUMA	Baila Moussa
HG	KANKAN	KANKAN CENTRE																									
HG	KANKAN	KARIFANORIYA																									
HG	KANKAN	KOUMBAN	yes	Common	1	20	20	20	20	Increasing	36	D	1	1	1	1	1	YES	P	NO	A	O	YES	S	NO	FARO	Lancine
HG	KANKAN	MAMOUROUDOU	no	Absent	0	0	0	0	0		14	W														DJERE	Sékou
HG	KANKAN	MISSAMAMA	no	Absent	0	0	0	0	0																	DIALLO	Daouda Saladou
HG	KANKAN	MORIBAYA	yes	Common	10 to 15	5 to 8	80 to 100	50	120	Increasing	72	D		1	1	1	1	YES	P	YES	S	R	YES	S	NO	KABA	Mamadi
HG	KANKAN	SABADOU-BARANAMA	yes	Common	3 to 4	2 to 3	xxxxx	6	12	Increasing	36	W					1	YES	P	YES	A	O	YES	M	NO	KEITA	Mamadou
HG	KANKAN	TINTIOULEN	no	Absent	0	0	0	0	0		1	W														KABA	Mory
HG	KANKAN	TOKOUMOU	yes	Rare	xxxxx	xxxxx	xxxxx	16	19	Decreasing	4	D					1	NO	P	NO	I		NO		YES	BAH	Aliou Telemele
HG	KEROUANE	BANANKORO	no	Absent	0	0	0	0	0		36	M														FAFANA	Djoma
HG	KEROUANE	DAMARO	yes	Rare	xxxxx	xxxxx	xxxxx	16	19		24	W	1	1			1		T	NO	I					CÉCÉ	Kokoli Loua
HG	KEROUANE	KÉROUANÉ CENTRE	yes	Common	6	10	10	10	60	Increasing	48	M					1	YES	P	YES	I	N	NO		NO	OUAKITÉ	Hady

HG	KEROUANE	KOMODOU	no	Absent	0	0	0	0	0		2	W															KONATÉ	Mamady
HG	KEROUANE	KONSANKORO	yes	Common	20	2	40 to 50	40	50	Increasing	4	M	1	1	1	1	1	YES	P	NO	I	N	NO		NO	KPOGHOMOU	Sibo gaspard
HG	KEROUANE	LINKO	no	Absent	0	0	0	0	0		11	W														LAMAH	Nyankoi Mathias
HG	KEROUANE	SIBIRIBARO	yes	Rare	3	2 to 6	10 to 16	6	18		24	W					1	YES	P	YES	I	AN	YES	S	NO	HAOMOU	Gocia Jerome
HG	KEROUANE	SOROMAYA	yes	Rare	4	4	10	10	16	Increasing	17	W					1	YES	T	YES	I	R	YES	S	NO	TINKIANO	Wona André
HG	KOUROUSSA	BABILA																									
HG	KOUROUSSA	BALATO																									
HG	KOUROUSSA	BANFELÉ	yes	Common	xxxxx	xxxxx	xxxxx	49	107			W		1	1	1	1										
HG	KOUROUSSA	BARO																									
HG	KOUROUSSA	CISSELA	yes	Abundant	2	25	50	50	50	Increasing	23	D		1	1	1	1	YES	P	YES						SAGNO	Jassey
HG	KOUROUSSA	DOUAKO	yes	Rare	1	15 to 20	15 to 20	15	20	Decreasing	36	D	1	1	1	1	1	YES	T	NO	A					KEITA	Sidiki
HG	KOUROUSSA	DOURA	yes	Rare	1	15 to 20	15 to 20	15	20																		
HG	KOUROUSSA	KINIÉRO																									
HG	KOUROUSSA	KOMOLA KOURA																									
HG	KOUROUSSA	KOUMANA																									
HG	KOUROUSSA	KOUROUSSA CENTRE	yes	Common	xxxxx	xxxxx	xxxxx	49	107	Decreasing	24	W			1	1	1	YES	S	YES	I					TRAORE	Demoussa
HG	KOUROUSSA	SANGUIANA																									
HG	MANDIANA	BALANDOUGOUBA	no	Absent	0	0	0	0	0		36	D														VICTOR	Marry
HG	MANDIANA	DIALAKORO	no	Absent	0	0	0	0	0		36	D														CONDE	Karifa
HG	MANDIANA	FARALAKO																									
HG	MANDIANA	KANTOUMANIA	no	Absent	0	0	0	0	0		24	D														TOURE	Abdoul Jadiry
HG	MANDIANA	KINIÉRAN	no	Absent	0	0	0	0	0		12	W														TOURE	Lamine
HG	MANDIANA	KONDIANAKORO	no	Absent	0	0	0	0	0			W														NIANKOYE	Lamah
HG	MANDIANA	KOUNDIAN	no	Absent	0	0	0	0	0		36	D														CAMARA	Julien
HG	MANDIANA	MANDIANA CENTRE	no	Absent	0	0	0	0	0		156	D														DOUMBOUYA	Amoumane
HG	MANDIANA	MORODOU	no	Absent	0	0	0	0	0		156	W														TRAORE	Kaako Houréma
HG	MANDIANA	NIANTANIA	no	Absent	0	0	0	0	0		24	W														MILLIMANNO	Fara
HG	MANDIANA	SALADOU	no	Absent	0	0	0	0	0		24	W														KONDIAO	James Gatien
HG	MANDIANA	SANSANDO																									
HG	SIGUIRI	BAKON																									
HG	SIGUIRI	DOKO																									
HG	SIGUIRI	FRANWALIA																									
HG	SIGUIRI	KINIÉBAKOURA	yes	Common	4	xxxxx	xxxxx	49	107	Decreasing	48	W		1			1	YES	P	YES	S	O	YES	M	NO	TRAORE	Moussa
HG	SIGUIRI	KINTINIAN	no	Absent	0	0	0	0	0		21	D														CAMARA	Mamady
HG	SIGUIRI	MALÉAH	yes	Common	3	xxxxx	4 to 6	4	6	Stable			1	1	1		1	YES	S	YES	I	N				CAMARA	Fanta Bory
HG	SIGUIRI	NABOUN	yes	Common	xxxxx	4 to 6	4 to 6	4	6	Increasing		W	1	1	1	1	1	NO	S	YES	S	N	NO		NO	BAMBA	Dansoka
HG	SIGUIRI	NIAGASSOLA																									
HG	SIGUIRI	NIANDANKORO																									
HG	SIGUIRI	NORASSOBA	yes	Rare	1	3 to 5	3	3	5	Decreasing	19	W			1		1	YES	P	YES	A	AN	YES	S	NO	CAMARA	Raymond
HG	SIGUIRI	NOUNKOUNKAN																									
HG	SIGUIRI	SIGUIRI CENTRE	yes	Rare	1	2	2	2	2	Stable																TRAORE	Amadou Kalo
HG	SIGUIRI	SIGUIRNI	yes	Common	3 to 4	3 to 4	3 to 4	3	16	Increasing	4	W		1	1	1	1	YES	S	YES	S	N	NO		NO	CAMARA	Tonko
							TOTAL	11949	23123																		

APPENDIX X. LOCATIONS OF CHIMPANZEE COMMUNITIES ACCORDING TO QUESTIONNAIRE RESULTS

		Chimpanzee locations in Guinée Maritime
		(Information from Questionnaires)
PRÉFECTURE	SOUS-PRÉFECTURE	LOCATION
BOFFA	Boffa Centre	Forêt de Gangan
BOFFA	Boffa Centre	Sèbhe Kouré
BOFFA	Boffa Centre	Soumbouroun
BOFFA	Boffa Centre	Belinya
BOFFA	Colia	Sur la chaine de montagne de Taïgné (District de Gobidje)
BOFFA	Colia	Aux bords de Fleuve Télébou
BOFFA	Colia	À l'Est du District de Mélékhouré
BOFFA	Douprou	Kawonso
BOFFA	Douprou	Saraya
BOFFA	Douprou	Trobadè
BOFFA	Douprou	Linkin
BOFFA	Douprou	Dembissa
BOFFA	Douprou	Youmaleya
BOFFA	Douprou	Koumbaya
BOFFA	Lisso	Boukou (Lisso Centre)
BOFFA	Lisso	Bolondé (Lisso Centre)
BOFFA	Lisso	Body (Lisso Centre)
BOFFA	Lisso	Santy (Zouba)
BOFFA	Lisso	Singuelinkhouré (Zouba)
BOFFA	Lisso	Télécita (Zouba)
BOFFA	Lisso	Monema (Missira)
BOFFA	Lisso	Lokhonton (Missira)
BOFFA	Lisso	Détékoun doukoun (Missira)
BOFFA	Témita	Montagne de Mawondé à Mourayah
BOFFA	Témita	Forêts de Toumaniah entre Tamita et Yenguissa sur l'ancienne toue
BOFFA	Témita	Forêts de Boussouran
BOFFA	Tougnifily	Samaara
BOFFA	Tougnifily	Sirafougué
BOKÉ	Boké Centre	Gbèrin (Secteur Kantouiba, District de Wakriya)
BOKÉ	Boké Centre	Kantchengré (Secteur Kantouiba, District de Wakriya)
BOKÉ	Sansalé	Village de Karahache
BOKÉ	Sansalé	Kachoupourou
BOKÉ	Sansalé	Kouff-Koï
BOKÉ	Sansalé	Kassansan
BOKÉ	Sansalé	Gallé-Tchala
BOKÉ	Sansalé	Kabako
BOKÉ	Sansalé	Hamdalaye
BOKÉ	Sansalé	Kassoly
BOKÉ	Sansalé	Dantèma
BOKÉ	Sansalé	Bérékoï
BOKÉ	Sansalé	Kalbonté
BOKÉ	Tanènè	Boundou-Fèrè
BOKÉ	Tanènè	Tchantchéguéla (tête de source)
BOKÉ	Tanènè	Marigot Bouroundouwol
BOKÉ	Tanènè	Fleuve (Tinguilinta)
BOKÉ	Tanènè	Marigot Marvitèguèwol
BOKÉ	Tanènè	Galerie Forestière Wéndou-Kéwi
BOKÉ	Tanènè	Belli-Kindi (tête de Source)
DUBREKA	Bady	Wonkoma (District de Tonton)
DUBREKA	Dubreka Centre	Kakoulima
DUBREKA	Dubreka Centre	Dixinn
DUBREKA	Khobira	Forêt du Mont Kabitaye (District de Gbantama)
DUBREKA	Khobira	Forêt du Mont Dombaya (Secteur de Saaya, District de Khoria)
DUBREKA	Ouassou	Montagne Taã Matodé au nord du District de Kountoun
DUBREKA	Tanènè	Forêt de Bolonyan dans le village Dioumayah
DUBREKA	Tanènè	Village Bamba zone Rivière
DUBREKA	Tanènè	Village Tomini
DUBREKA	Tanènè	Village Missira
DUBREKA	Tondon	Bamba
DUBREKA	Tondon	Khourkhan
DUBREKA	Tondon	Karim
DUBREKA	Tondon	Barga

DUBREKA	Tondon	Tangon
DUBREKA	Tondon	Doukeya
FORECARIAH	Allassoyah	Montagne (District de Taban)
FORECARIAH	Allassoyah	Bassia (Secteur Filidé et Fansiga)
FORECARIAH	Benty	Secteur Mangue (District Bôrô)
FORECARIAH	Farmoriah	Forêt Classée de Saraboly
FORECARIAH	Farmoriah	Bankafounkou
FORECARIAH	Farmoriah	Bougariah
FORECARIAH	Moussayah	Forêt Kounounkan et ses villages environnants
FORECARIAH	Moussayah	Sansankhori
FORECARIAH	Moussayah	Khimbéli
FORECARIAH	Moussayah	Berébou
FORECARIAH	Moussayah	Sandawoli
FORECARIAH	Moussayah	Béléguéya
FORECARIAH	Moussayah	Barakhouré
FORECARIAH	Moussayah	Koundindé
FORECARIAH	Moussayah	Kalédi
FORECARIAH	Moussayah	Guiya boundji
FORECARIAH	Sikhourou	Limite Tabékhouré (Sandiah)
FORECARIAH	Sikhourou	Démoukhouré dans la forêts des monts berma
FORECARIAH	Sikhourou	Kankan dans les monts berma
FORECARIAH	Sikhourou	Gboroka (District de Santiguiyah)
FORECARIAH	Sikhourou	Lambangbè (District de Damaya)
FRIA	Banguigny	Tourdou
FRIA	Banguigny	Hafia
FRIA	Banguigny	Gabalan
FRIA	Banguigny	Bamikolon
FRIA	Banguigny	Tossokéré
FRIA	Banguigny	Macina
FRIA	Banguigny	Téssédji
FRIA	Banguigny	Bondou lingué
FRIA	Banguigny	Fatala
FRIA	Banguigny	Dara
FRIA	Banguigny	Walidawa
FRIA	Banguigny	Wonndiré hindè
FRIA	Banguigny	Gouba
FRIA	Banguigny	Mandiako
FRIA	Fria Centre	Khondé-Khouré
FRIA	Tormèlin	VillageCarrière Barakhaya
KINDIA	Bangouya	Yataya (Siguima)
KINDIA	Bangouya	Fotoukhomè
KINDIA	Bangouya	Bangouya
KINDIA	Bangouya	Centre (Soussoura)
KINDIA	Bangouya	Méyeukhouré
KINDIA	Kolenté	Montagne Kinkilin
KINDIA	Kolenté	À la source Demouyekoundé (District de Kinita)
KINDIA	Kolenté	Kondoya (Secteur Khônèya) dans la forêt de Kankikomè
KINDIA	Madina Oula	Village de Kabaya
KINDIA	Madina Oula	Montagne Saïdouya (District de Souleymania
KINDIA	Madina Oula	Télica
KINDIA	Meambia	Dougoukha Khounyi entre Guindi Galanyi et Matakan
KINDIA	Meambia	Weny (Khaligro)
KINDIA	Meambia	Taloé (Tanènè)
KINDIA	Meambia	Friguiady
KINDIA	Meambia	Montagne Tangan
KINDIA	Meambia	Débélé
KINDIA	Meambia	Kourouba
KINDIA	Meambia	Taaguiya
KINDIA	Meambia	Montagne Koulégandé
KINDIA	Molota	Village de Séfan
KINDIA	Molota	Montagne battara au bord de la Rivière Foko à Kalédi
KINDIA	Molota	Rivière Killissi à Bôkô
TELIMELE	Brouwal	Lambawol (Tossokéré)
TELIMELE	Brouwal	Wouloun (Kansaghi)
TELIMELE	Brouwal	N'Dalawel (Dyindyimma)
TELIMELE	Daramagnaki	Daramagnaki Centre (Sounkirè)
TELIMELE	Koba-Bowé	Toute la sous-préfecture
TELIMELE	Kollet	Wara (Koumsikonè)
TELIMELE	Kollet	Toumania (Yongassi)

TELIMELE	Kollet	Forêt Classée Dra-Wondi)
TELIMELE	Kollet	Boumaï (Demou-Douma)
TELIMELE	Kollet	Sangalé
TELIMELE	Kollet	Dambakéré
TELIMELE	Kollet	Kouria
TELIMELE	Kollet	Balifoton
TELIMELE	Missira	Forêts de Bendé Barè (District Missira Centre)
TELIMELE	Missira	Bodonkon (District Missira Centre)
TELIMELE	Missira	Bhoundou Nyaaki (District Missira Centre)
TELIMELE	Missira	Sèère Saakoola (District Missira Centre)
TELIMELE	Missira	Wondiri Soori (District Missira Centre)
TELIMELE	Missira	Simbarahoye (District Missira Centre)
TELIMELE	Missira	Tèèma (District Missira Centre)
TELIMELE	Missira	Baguewi horè Biffié (District Missira Centre)
TELIMELE	Missira	Tyankoyé (District Missira Centre)
TELIMELE	Missira	Diololllè maadi (District Missira Centre)
TELIMELE	Missira	Horè Fello (District Kompéta)
TELIMELE	Missira	N'Danta Dewoo (District Kompéta)
TELIMELE	Missira	Bololol Limba (District Kompéta)
TELIMELE	Missira	Dougougol (District Kompéta)
TELIMELE	Missira	Donyol Cirè (District Kompéta)
TELIMELE	Missira	Dombelhoum (District Guèmè)
TELIMELE	Missira	Diolol Démou (District Guèmè)
TELIMELE	Missira	Djolel Bentan (District de Thyindoye)
TELIMELE	Missira	Koula Gabhi (District de Thyindoye)
TELIMELE	Missira	Guermè (District Foye)
TELIMELE	Missira	Petii (District Foye)
TELIMELE	Missira	Tountii (District Foye)
TELIMELE	Missira	Bambeto (District Foye)
TELIMELE	Missira	Mankoukou (District Foye)
TELIMELE	Missira	Diolol Baila M'Baré (District Foye)
TELIMELE	Missira	Tyikata (District Bandouma)
TELIMELE	Missira	Kahirè (District (Bandouma)
TELIMELE	Missira	Diwé (District Kalouma)
TELIMELE	Missira	Hooré Seéré (District Kalouma)
TELIMELE	Missira	Donyol Dempetin (District de N'Dantabhoura)
TELIMELE	Missira	Tessin (District de N'Dantabhoura)
TELIMELE	Missira	Yilotoo (District de Bhoundore Lingué)
TELIMELE	Missira	Doncle Loopoye (District de Bhoundore Lingué)
TELIMELE	Missira	Kourahi (District de Teliwora)
TELIMELE	Missira	Diolol Bondi (District de Teliwora)
TELIMELE	Missira	Horéaden (District de Bommany)
TELIMELE	Santou	Forêt Classée de Paradyi au village Brouwal
TELIMELE	Santou	Montagen Bambeito
TELIMELE	Santou	Koudissa
TELIMELE	Santou	Village Kokoya
TELIMELE	Santou	Montagne Kaliffa
TELIMELE	Sinta	Forêt Classée de Guèmè Sangan
TELIMELE	Sinta	Donghol Bedhi
TELIMELE	Sinta	Lemoumé Kouré
TELIMELE	Tarikoye	Banga hooré nafamou dans le village de Karikari (District de Silaté)
TELIMELE	Tarikoye	Dara-Centre
TELIMELE	Tarikoye	Bhoundu Eda
TELIMELE	Tarikoye	Maaloum
TELIMELE	Tarikoye	Karè Dabhel
TELIMELE	Tarikoye	Hobéré
TELIMELE	Telimele Centre	Nyabéli (District de Sakoliba)

		Chimpanzee locations in the Fouta Djallon
		(Information from Questionnaires)
PRÉFECTURE	SOUS-PRÉFECTURE	LOCATION
DALABA	Bodié	Boko
DALABA	Bodié	Lèbèrè
DALABA	Bodié	Yérandé
DALABA	Bodié	Rivière Kalinko
DALABA	Bodié	Dyollol
DALABA	Bodié	Tchimmè
DALABA	Dalaba Centre	Forêt Classée de Tangama
DALABA	Dalaba Centre	Rivière Gongowi (Village Yomou)
DALABA	Dalaba Centre	Forêt Classée Makory (Koba)
DALABA	Ditinn	Forêt classée de Fougoumba
DALABA	Ditinn	Forêt Classée Ley-Fita
DALABA	Kankalabé	Samba
DALABA	Kankalabé	Nayi
DALABA	Kankalabé	Yofoko
DALABA	Kébaly	Koumben
DALABA	Kébaly	Togueta (District de Banga)
DALABA	Koba	Fello Malanga
DALABA	Koba	Samba Diawo
DALABA	Koba	Fita Tyalèrè
DALABA	Koba	Kollakoye
DALABA	Koba	Katarè
DALABA	Koba	Thyorombi
DALABA	Koba	Thyongol
DALABA	Koba	Pandjikoré
DALABA	Koba	Fello Fougoum
DALABA	Koba	Loopé
DALABA	Koba	Pellel Nordy
DALABA	Mafara	Mafara Centre
DALABA	Mafara	Doudé (Bourouwal Pemoun)
DALABA	Mafara	Taninkouré (Kétigué)
DALABA	Mitty	Diangolo
DALABA	Mombeya	Waussan
DALABA	Mombeya	Forêt Classée de Gally
GAOUAL	Foulamory	Foulamory Centre
GAOUAL	Foulamory	Kithian
GAOUAL	Foulamory	Kankody
GAOUAL	Foulamory	Tanda
GAOUAL	Gaoual Centre	Village Barkèrè
GAOUAL	Kakony	Village Bamba (District Kassaya)
GAOUAL	Kakony	Montagne Pensy (Secteur Ley-Pensy)
GAOUAL	Kakony	Secteur Ley-Timbi (District Ley Timbi) entre Pensy et Ley Tinki
GAOUAL	Kakony	Forêt Touffues de Dalina
GAOUAL	Kakony	Montagnes de nDDontary
GAOUAL	Koumbia	Haccoudhè tyandhi
GAOUAL	Koumbia	Pety
GAOUAL	Koumbia	Kembera
GAOUAL	Koumbia	Koumbia II
GAOUAL	Koumbia	Guidaly
GAOUAL	Koumbia	Bhouly
GAOUAL	Koumbia	Madina Bowé
GAOUAL	Koumbia	Madina Guilédji
GAOUAL	Kounsitel	Kounsitel
GAOUAL	Kounsitel	Kassenga
GAOUAL	Kounsitel	Woton
GAOUAL	Kounsitel	Tagourou
GAOUAL	Kounsitel	Thèlm
GAOUAL	Kounsitel	Kourewele Aita
GAOUAL	Mealanta	Goungouroum (Secteurs de Saraya, Wésséguélé-lamban)
GAOUAL	Mealanta	Bougoumé
GAOUAL	Mealanta	Rivière Binani Boussoura
GAOUAL	Touba	Village Touba Centre
GAOUAL	Touba	Montagne Kokou

GAOUAL	Touba	Yibhi dans une forêt conquise
GAOUAL	Touba	Rivière de Dioukounko
GAOUAL	Wendou M'Borou	Bensané Gogon
KOUBIA	Fafaya	Villages Bantiguel (Simily)
KOUBIA	Fafaya	Marwata (Fafaya)
KOUBIA	Fafaya	Nyéloye (Fafaya)
KOUBIA	Fafaya	Presque tous les villages de Simily
KOUBIA	Fafaya	Rivière Feto Kendhi
KOUBIA	Fafaya	Rivière Koïlawol
KOUBIA	Fafaya	Rivière para dyabhè
KOUBIA	Fafaya	Rivière Comba Couré Undouwol
KOUBIA	Fafaya	Montagne Manga yango
KOUBIA	Fafaya	Montagne Sèèrè Dara
KOUBIA	Gadha Woundou	Rivière de Nyooma
KOUBIA	Gadha Woundou	Rivière de Diolo
KOUBIA	Gadha Woundou	Rivière de Koïla
KOUBIA	Gadha Woundou	Rivière de Sambouya
KOUBIA	Gadha Woundou	Rivière de Nyooma
KOUBIA	Gadha Woundou	Montagne de Madina
KOUBIA	Gadha Woundou	Montagne de Fello Koby
KOUBIA	Gadha Woundou	Montagne de Borio
KOUBIA	Gadha Woundou	Montage de Dalaba
KOUBIA	Gadha Woundou	Montagne de Kandiaba
KOUBIA	Gadha Woundou	Forêt Classée de Woundou Nord and Sud
KOUBIA	Gadha Woundou	Plantation bananerais du citoyen Mounier Diaby
KOUBIA	Gadha Woundou	Ley Fello-Dalaba
KOUBIA	Gadha Woundou	Fissaya
KOUBIA	Gadha Woundou	Timberin
KOUBIA	Gadha Woundou	Diolol gouba
KOUBIA	Gadha Woundou	Cours d'eau Kiyonne
KOUBIA	Pilimini	Campa (District de Nyakaya)
KOUBIA	Pilimini	Siguiton (District de Madina Dondé
KOUBIA	Pilimini	Dondé (District de Silamakaya)
KOUNDARA	Saréboïdo	Yokoko dans Badiare Bord (District de Madinah)
KOUNDARA	Saréboïdo	Bauriré sur le mont Badiar (Paounka)
LABÉ	Dalein	Village Doghi
LABÉ	Dalein	Village Lingué
LABÉ	Dalein	Rivière Loppéwol
LABÉ	Dalein	Forêt Classée de la Haute Komba
LABÉ	Dalein	Brouwal Krikin
LABÉ	Dara-Labé	Forêt Classée Secteur Romilgol
LABÉ	Dara-Labé	Sèré (Secteur Laary)
LABÉ	Diari	Chute de Sala
LABÉ	Diari	Sarè Woundi
LABÉ	Diari	Guermé
LABÉ	Diari	Donta
LABÉ	Dionfo	Secteur de Dougaya (District de Kourako)
LABÉ	Kalan	Ley Tongo (District Dar es Salam) sur une montagne dans une forêt villageoise
LABÉ	Noussy	Village de Kaata
LABÉ	Noussy	Rivière Wasaan
LABÉ	Noussy	Montagne Tyouckou
LABÉ	Noussy	Champ Temeni
LABÉ	Noussy	Forêt Classée de Gali
LABÉ	Popodara	Forêt Classée de Sérima
LABÉ	Tountouroun	Zone de Tommy
LABÉ	Tountouroun	Village Horè Sèrè
LABÉ	Tountouroun	Montagne Sèrè
LABÉ	Tountouroun	Forêt Classée de Horè Dimma
LELOUMA	Balaya	Montagne de Baraba
LELOUMA	Balaya	Montagne de Gouyan
LELOUMA	Balaya	Montagne de Gokiya
LELOUMA	Balaya	Montagne de Fello Kahi (Brouwighelel)
LELOUMA	Balaya	Montagne de Fitaba Galanloudio
LELOUMA	Korbè	Montagne de Lekoun
LELOUMA	Korbè	Rivière Kassa
LELOUMA	Lafou	Peguety dantariwol
LELOUMA	Lafou	Kigna mangol
LELOUMA	Lelouma Centre	Nyènyètéré (Secteur de Kansanji) près de la montagne de Pelly Houdabé
LELOUMA	Lelouma Centre	Montagne Galan

LELOUMA	Lelouma Centre	Rivière Galanwol
LELOUMA	Lelouma Centre	Village Sassé (District Diala Missidé)
LELOUMA	Linsan-Saran	Bahawa fello Kokoulo
LELOUMA	Linsan-Saran	Fello Niamkou
LELOUMA	Linsan-Saran	Hèramakönö
LELOUMA	Linsan-Saran	Kansouma
LELOUMA	Linsan-Saran	L'enclave de Kagnegandé
LELOUMA	Linsan-Saran	Rivière Tougiwel
LELOUMA	Linsan-Saran	Villages Tyankoye
LELOUMA	Linsan-Saran	Forêt Classée Nyalama
LELOUMA	Linsan-Saran	Côté de la montagne de Kokolen
LELOUMA	Parawol	Montagne de Patya entre le village Patya et le village Kimbissy
LELOUMA	Tyanuel Bory	Mont de Kola
LELOUMA	Tyanuel Bory	Mont Dian Bhoyi
LELOUMA	Tyanuel Bory	Tyankoun Wouro
LELOUMA	Tyanuel Bory	Rivière Nouma
MALI	Balaki	Montagne de Diangofily
MALI	Dougountouny	District du Centre
MALI	Dougountouny	Karan à Chute
MALI	Dougountouny	Molleya (District Diobèe
MALI	Dougountouny	Fria à la chute
MALI	Dougountouny	Fakabou (District Dara)
MALI	Gayah	Chute de Kaouma
MALI	Gayah	Montagne de Lango
MALI	Gayah	Tongomole
MALI	Gayah	Djolon Secteur
MALI	Hidayatou	Village Dondé-Diaby (District Tembou
MALI	Hidayatou	Village Baa Saudé (District Dalama)
MALI	Hidayatou	Rivière Lity Thierno Sory
MALI	Hidayatou	Rivière Komet
MALI	Hidayatou	Rivière Dimma
MALI	Hidayatou	Montagne de Rondé-Tembou
MALI	Lébékérin	Méréguiri sur une montagne
MALI	Lébékérin	N'Dangoupan petite village
MALI	Lébékérin	Montagne de Kalansan
MALI	Lébékérin	Village de Bingaldji
MALI	Lébékérin	Horèwédou
MALI	Mali Centre	Montagne de Samara
MALI	Télirè	Foytère
MALI	Télirè	Teliko
MALI	Touba	Montagne de Goundouroudyi
MALI	Touba	Village de Koura (District de Coyah)
MALI	Touba	Montagne de Balou (Woté-Woté) (District de Touba centre)
MALI	Touba	Rivière de Kouré Nyaki (District Touba centre)
MALI	Touba	Montagne de Talapanda-GNéla (District de Sanngui)
MALI	Yambering	Sankansaré
MALI	Yambering	FePouré
MAMOU	Boulliwel	Village de Kourabassia à fello Djourdé
MAMOU	Boulliwel	Fleuve Bafing
MAMOU	Boulliwel	Dogol Kamany (District de Kendouma secteur Loukou)
MAMOU	Doumet	Rivière Nafadj (District Diolobaya)
MAMOU	Gongorêt	Kourou et Doukou
MAMOU	Kégnéko	Village Hérico
MAMOU	Kégnéko	Hameau de Madina
MAMOU	Kégnéko	Forêt Classée de Beauvois
MAMOU	Kégnéko	Hameau de Kolla
MAMOU	Kégnéko	Braulaukoto
MAMOU	Kégnéko	Saraudia
MAMOU	Kégnéko	Fatafing
MAMOU	Kégnéko	Gadha hérico
MAMOU	Konkouré	Forêt classée de Konkouré fetto
MAMOU	Konkouré	Forêt de N'gagna
MAMOU	Mamou Centre	Forêt Classée de Bafing
MAMOU	Ouré kaba	Forêt Classée de Pensely
MAMOU	Ouré kaba	Village Kissia
MAMOU	Ouré kaba	Village Porto-fita Souloum
MAMOU	Ouré kaba	Village Kagnako
MAMOU	Ouré kaba	Village Sogoroya
MAMOU	Ouré kaba	Village Banékoto

MAMOU	Ouré kaba	Village Sitakoto
MAMOU	Ouré kaba	Village Seleya
MAMOU	Ouré kaba	Village Kégnébé
MAMOU	Ouré kaba	Village Sakanokola
MAMOU	Porédaka	Pitawi Boloyrou
MAMOU	Porédaka	Fello Diafé
MAMOU	Porédaka	Diatakissi
MAMOU	Porédaka	Didèré Djiwo
MAMOU	Porédaka	Botokowol
MAMOU	Saramoussaya	Forêt Classée de Bagata
MAMOU	Soya	Longory
MAMOU	Soya	Teloba
MAMOU	Soya	Fetto Kintin
MAMOU	Soya	Dadhé lolé
MAMOU	Soya	Bantanko
MAMOU	Soya	Fetowin
MAMOU	Soya	Pelil boubou
MAMOU	Soya	Kolo
MAMOU	Soya	Doumkobiya
MAMOU	Soya	Tanèné
MAMOU	Soya	Tyoukkou Ngol
MAMOU	Soya	Gnaka
MAMOU	Soya	Dioussaya
MAMOU	Soya	Forêt Classée de Soya
MAMOU	Soya	Kambranya
MAMOU	Soya	Sabouya pau djéporé
MAMOU	Soya	Korofita
MAMOU	Soya	Dadhe Kintimool molokoré
MAMOU	Teguéréya	Bhoundou
MAMOU	Teguéréya	Soro ley mayo
MAMOU	Teguéréya	Djoli fello
MAMOU	Teguéréya	Téguéreya Centre
MAMOU	Teguéréya	Forêt Classée Dares salam
MAMOU	Teguéréya	Village Katara
MAMOU	Timbo	Forêt Classée Bellel
MAMOU	Timbo	Montagne Fatafouga
MAMOU	Timbo	Montagne Koudekou
MAMOU	Tolo	Forêt Classée Bafing
PITA	Bourouwaltapé	Rivière Kokoulo (District de Ley Ugnélé)
PITA	Dongol Touma	Montagne de Ghelel
PITA	Dongol Touma	Plantation de Koura Mouké (District de Tairé)
PITA	Dongol Touma	Forêts de Touman Gaika (District de Kallilamban)
PITA	Dongol Touma	Guelenur (District de Tairé)
PITA	Dongol Touma	Bas fonds des Falaises de Doucky
PITA	Gongoré	Rivière Bendlen
PITA	Gongoré	Kebe Kerin
PITA	Gongoré	Baguewel
PITA	Gongoré	Coucoulocé
PITA	Gongoré	Montagné Yimbilin
PITA	Gongoré	Forêt Lopé
PITA	Gongoré	District de Deben
PITA	Gongoré	Secteurs de Madina Nétéré, Dionfou Timidi, Kourqouré
PITA	Ley-Miro	Montagne Gaya (District de Kouyé)
PITA	Ley-Miro	Foret de Daadé Yalaman (District de Worèngas)
PITA	Maci	Secteurs Bhouly-Haman Boubily-Bhouly-Bhandou Naire (District de Thi`wèrè)
PITA	Maci	Secteurs Ley-Binty-Gondion-Lébéré-Doulara-Lopedja (District de Kambaco)
PITA	Maci	Secteur Boucloyé-Kouly (District de Dantary)
PITA	Maci	Secteur Litty (District de Tangan)
PITA	Ninguélandé	Pita Tyimmedji montagne (District de Safa)
PITA	Ninguélandé	Ley-Keasemarivière (District de Bourvie)
PITA	Ninguélandé	Rivière à Debeyah (District de Ley-Kampa)
PITA	Pita Centre	Plantation d'orangers de El Hadj Thyopaye
PITA	Pita Centre	Rivière Koubi
PITA	Pita Centre	Ley-Barcoye
PITA	Pita Centre	Falawi
PITA	Sangaréah	Rivière Tyagui-kourore Secteur de Dikouron
PITA	Sangaréah	Montagne Démoukoulima
PITA	Sangaréah	Fello Woulloun
PITA	Sangaréah	Donghol Labou (dans ninguétéré)

PITA	Sangaréah	Forêt Classée de Kora dans Sari
PITA	Timbi Tounni	Haide Bama
PITA	Timbi Tounni	Pellel Missira
PITA	Timbi Tounni	Diguel-Loumara
PITA	Timbi Tounni	Timbi Tounni Centre
TOUGUE	Fatako	Fello Fogo missudé
TOUGUE	Fello Koundoua	Korbo Fello Koundoua
TOUGUE	Koin	Montagne de Bantagui (Diguira)
TOUGUE	Kollet	District Kègna Oula
TOUGUE	Kollet	Balabori
TOUGUE	Konah	Village de Kolosso
TOUGUE	Konah	Village de Koumbame
TOUGUE	Konah	Village de Wendékourou
TOUGUE	Konah	Rivière Koila
TOUGUE	Konah	Rivière Noppi
TOUGUE	Konah	Village Noppi
TOUGUE	Konah	Village Kounsen
TOUGUE	Kouratongo	Village de Benseri
TOUGUE	Kouratongo	Forêt Classée de Bakoun
TOUGUE	Kouratongo	Rivière Barita de Horet Kollet
TOUGUE	Kouratongo	Dans les champs exterieurs des villageois de Dou Kouratongo
TOUGUE	Kouratongo	Le long du cours d'eau de la forêt classée de Bakoun
TOUGUE	Kunsaghi	Forêt Bani (District de Kémaya)
TOUGUE	Tangaly	Montagne de Djigui (District de Tangaly)
TOUGUE	Tangaly	Montagne de Ktima (District de Barita)
TOUGUE	Tougue Centre	Forêt communautaire de Nyakoula (District de Kègna)

		Chimpanzee locations in Haute Guinée
		(Information from Questionnaires)
PRÉFECTURE	SOUS-PRÉFECTURE	LOCATION
DABOLA	Arfamoussaya	Boussoura (Forêt perivillageouise) bordure Rivière Foulakonin
DABOLA	Arfamoussaya	Fadama (Village Koumasson)
DABOLA	Arfamoussaya	Nyalenberg Foulakonon
DABOLA	Bissikrima	Forêt Classée de Souroumba
DABOLA	Bissikrima	Village de Dragbé
DABOLA	Bissikrima	Voumsoun
DABOLA	Bissikrima	La zone de Maréna dans Bendou
DABOLA	Dabola Centre	Montagne de Sincery (Zone classée)
DABOLA	Dogomet	District Dabola-Bérété
DABOLA	Dogomet	Forêt Falanko
DABOLA	Dogomet	Village Botèkoto
DABOLA	Kankama	Village Diguilin à Bouka à Kankama
DABOLA	Kindoye	Montagne de Sakafo
DABOLA	Kindoye	Montagne Kalan
DABOLA	Ndema	Entre Djabakaya et Gbétaya
DINGUIRAYE	Dialakoro	Tinkisso
DINGUIRAYE	Dialakoro	Metta
DINGUIRAYE	Dialakoro	Falabantan
DINGUIRAYE	Dialakoro	District de Fello-Lamou
DINGUIRAYE	Dialakoro	District de Dialakoro Centre
DINGUIRAYE	Diatiferè	Marigot Kifala
DINGUIRAYE	Diatiferè	Flanc de la chaine de montagnes de Dabatou
DINGUIRAYE	Diatiferè	Entre le secteur Kogoya et Fandana
DINGUIRAYE	Diatiferè	Dans la forêt de Kotourou et Modorou (District de Syllaya)
DINGUIRAYE	Diatiferè	Tout au long des marigots de Korowol
DINGUIRAYE	Diatiferè	Gombo (District de Soulefing)
DINGUIRAYE	Diatiferè	Fleuve Bafing
DINGUIRAYE	Dinguiraye Centre	Au bord des rivières, des montagnes, champs dans le village de Gandaba (secteur de Tinkisso)
DINGUIRAYE	Gaganakaly	Montagne qui est de l'est à l'ouest tout près de la s/p de Gagnakaly
DINGUIRAYE	Kalinko	Bhundu Tyéké
DINGUIRAYE	Kalinko	Mt. Limbilamba
DINGUIRAYE	Kalinko	Heramakono
DINGUIRAYE	Kalinko	Tamba-Diankourou
DINGUIRAYE	Kalinko	Fello-Kewe
DINGUIRAYE	Kalinko	Kamban
DINGUIRAYE	Kalinko	Sobodaka
DINGUIRAYE	Lansanaya	Chaine de montagne Bantanko
DINGUIRAYE	Lansanaya	Le long du marigot Falan (District Tamba-Noro)
DINGUIRAYE	Lansanaya	Forêt de Bamika
DINGUIRAYE	Lansanaya	La chaine de Montagne de Fonfoya
DINGUIRAYE	Lansanaya	Marigot Téliré
DINGUIRAYE	Lansanaya	Secteur Boyè-Dèbè
DINGUIRAYE	Selouma	Forêt Classée Selouma
DINGUIRAYE	Selouma	Fogo
DINGUIRAYE	Selouma	Worowole
FARANAH	Beindou	Magniniko
FARANAH	Beindou	Gbèsèkoba
FARANAH	Beindou	Farakoba
FARANAH	Beindou	Konitèsaaba
FARANAH	Beindou	Tikiri
FARANAH	Beindou	Bankoudenka
FARANAH	Beindou	Kinyèkoba
FARANAH	Beindou	Somoria sur la Niger
FARANAH	Beindou	Foya
FARANAH	Kobikoro	Sérémoussadou
FARANAH	Kobikoro	Anceine village du secteur de Kiraye
FARANAH	Kobikoro	Safignah
FARANAH	Kobikoro	Montagne Doussayah
FARANAH	Kobikoro	Plantation Fantaya de El-Hadj Mamadou Diakité
FARANAH	Kobikoro	Village de Mamoudouya
FARANAH	Kobikoro	Forêt lité
KANKAN	Boula	Rivière Soridiauko

KANKAN	Koumban	Forêt Classée de Koumban Kourou
KANKAN	Moribaya	Rivière Bambadako dans le village de Manfran
KANKAN	Moribaya	Fouanidjan et Badakoudou dans les villages Tinkon et Gbalatto
KANKAN	Moribaya	Rivière de Kalanko dans le village de Saourou
KANKAN	Moribaya	Kounantou dans le village de Boundaya
KANKAN	Moribaya	Soumayinfé dans le village de Banko
KANKAN	Sabadou-Baranama	Village Sanah dans la zone de Djéfida
KANKAN	Sabadou-Baranama	Village Tèrè
KANKAN	Tokounou	Tounkarala
KANKAN	Tokounou	Farmoria
KEROUANÉ	Commune Urbaine	Sokoro sur la montagne Gben
KEROUANÉ	Commune Urbaine	Mateniu-Mordou
KEROUANÉ	Commune Urbaine	Sakodou
KEROUANÉ	Commune Urbaine	Souloukoudenka
KEROUANÉ	Commune Urbaine	Woussouma
KEROUANÉ	Commune Urbaine	Dans la forêt de Kõnõ
KEROUANÉ	Kensankoro	Loyaro sur la montagne Nafrotini (Secteur Frafina)
KEROUANÉ	Kensankoro	Montagne Gbei à Samoïdou
KEROUANÉ	Kensankoro	Au bas de la montagne Nafrotini (Secteur Kassiadou)
KEROUANÉ	Kensankoro	Sur la montagne Simandou
KEROUANÉ	Kerouané Centre	Village Oussouma dans la forêt Diamanti-Thou(District Dialla)
KEROUANÉ	Sibiribaro	Secteur de Bouro Minantoumadou Monzondou
KEROUANÉ	Sibiribaro	Soulakoto
KEROUANÉ	Sibiribaro	Kabadou
KEROUANÉ	Sibiribaro	Férédou
KEROUANÉ	Soromaya	Montagne Lombroma
KOUROUSSA	Douako	Distirct Silamana
KOUROUSSA	Kouroussa Centre	Krimba (District Djigbèla)
KOUROUSSA	Kouroussa Centre	Fassakoro (District Djigbèla)
KOUROUSSA	Kouroussa Centre	Cissela Centre
SIGUIRI	Kignebakoura	Village Bafing-Koba
SIGUIRI	Kignebakoura	Rivière Koba
SIGUIRI	Maléah	Bourroumou
SIGUIRI	Maléah	Danaya
SIGUIRI	Maléah	Wofoun
SIGUIRI	Naboun	District de Soumbaraya
SIGUIRI	Norassoba	Kalabokrou à Horakoura (District Dalamingon)
SIGUIRI	Norassoba	Siguirini
SIGUIRI	Siguiri Centre	Secteur de Djilengbé
SIGUIRI	Siguiri Centre	Forêt Kobadah
SIGUIRI	Siguiri Centre	Fleuve Tinkisso côté commune

		Chimpanzee locations in Guinée Forestière
		(Information from Questionnaires)
PRÉFECTURE	SOUS-PRÉFECTURE	LOCATION
GUECKEDOU	Bolodou	Forêt de Belessa
GUECKEDOU	Bolodou	Forêt de Sandony
GUECKEDOU	Bolodou	Montagne de Kondou
GUECKEDOU	Bolodou	Village de Bélessa
GUECKEDOU	Guéndémbou	Guelo
GUECKEDOU	Guéndémbou	Guendembou
GUECKEDOU	Guéndémbou	Boukoussou
GUECKEDOU	Ouéndé Kènèma	Forêt Classée Kouyō
GUECKEDOU	Tékoula	Montagne de Kongonany (District de Yaradou Kingonany)
GUECKEDOU	Temèssadou Djigbo	Yomadou Koundou Fama
GUECKEDOU	Temèssadou Djigbo	Kolikoumbadou
GUECKEDOU	Temèssadou Djigbo	Bendouboodou
LOLA	Boussou	Mont Nimba
LOLA	Boussou	Mont Gban
LOLA	Foumbadou	Mont Tétini
NZÉRÉKORÉ	Boumouma	Forêt Classée de Diécké
NZÉRÉKORÉ	Kobela	Forêt Classée du Mont Yōnō le long du Fleuve Diani
YOMOU	Bianamou	Forêt Classée des Monts Bigna et Ballan
YOMOU	Diécké	Forêt Classée de Diécké
YOMOU	Diécké	Montagne de Koroghoum

APPENDIX XI. PROVERBS AND LEGENDS ABOUT CHIMPANZEES

LEGENDS AND PROVERBS ABOUT CHIMPANZEES

One of the questions in the questionnaire sent to the Chef de Cantonnement in each Sous-Préfecture was "do you know any legends or proverbs about chimpanzees?". Like most of the questions in the questionnaire, the answers were extremely variable. Many questionnaires were left blank whereas some Chefs de Cantonnements put a great effort into answering this question. I would like to thank in particular, Telly Diallo, who was at the time the Chef de Cantonnement of Koumbia, Gaoual and Aramoussa Sané, "chargé de la Faune" in Boké.

I would have liked to have specified which area of Guinea each legend came from, but as the Chefs de Cantonnements were not necessarily from the area where they were serving, this was not always possible. Where the ethnic group was known, I have specified this.

The legends are written in my own words. Sometimes I have combined details from different people who told similar stories. I have tried to approximate the following as closely as possible the original legends or proverbs.

One of the most common stories told in Guinée Maritime by the Susu is that:

Chimpanzees used to be humans but they were transformed into chimpanzees when they went against the wishes of God by fishing on a Saturday.

(Préfecture: Dubréka, Sous-Préfecture: Tanènè and Ouassou)
(Préfecture: Mandiana, Sous-Préfecture: Nyantanina)
(Préfecture: Boké)

Similarly...

A long time ago, it was forbidden for humans to clear their fields on a Saturday. One day a group of people arrived and broke this law. As a result, an argument broke out amongst the people concerning the days of work. Finally the group of people who had broken the law were transformed into chimpanzees.

(Préfecture: Koundara, Sous-Préfecture: Commune Urbaine)

In the Fouta Djallon, the most common Peul story about the origin of chimpanzees is as follows:

Chimpanzees used to be blacksmiths but they were transformed into chimpanzees because they refused to pray at the hour specified by God.

(Préfecture: Boké)

A common proverb all over Guinea is as follows:

Chimpanzees are ugly but work left undone is more ugly than the chimpanzee.

There are also many variations on this theme, such as *Chimpanzees are more beautiful than he who starts something without completing it.*

(Préfecture: Dubréka, Sous-Préfecture: Commune Urbaine and Bady).
(Préfecture: Dalaba, Sous-Préfecture: Mombeya)
(Préfecture: Koundara, Sous-Préfecture: Soreboido)
(Préfecture: Pita, Sous-Préfecture: Maci and Commune Urbaine)
(Préfecture: Lola, Sous-Préfecture: Nzo...Proverb Kono)
(Préfecture: Boffa, Sous-Préfecture: Tamita)
(Préfecture: Fria, Sous-Préfecture: Commune Urbaine and Tormelin)
(Préfecture: Kankan, Sous-Préfecture: Bérédou Baranama)
(Préfecture: Tougue, Sous-Préfecture: Kourarongou and Commune Urbaine)

It seems to be a common theme that chimpanzees are ugly creatures. For example...

One day the animals organised a meeting. The aim of the gathering was to kill all animals that were too ugly. The chimpanzee attended the meeting, unaware of its purpose. When he heard learnt it was about, he

immediately retreated from the crowd and sat reflecting upon his fate. The bush pig arrived late for the meeting, but when he found out from his friend the chimpanzee, the reason for the meeting, he said that the outcome would not be at all favourable for the two of the them so they fled into the forest!

(Préfecture: Boké)

Similarly...

One day, all the animals of the forest had a meeting. The president of the meeting declared: "Dear colleagues, we are gathered here today to kill the ugliest amongst us." The chimpanzee (who was standing next his uncle the monkey), immediately took flight deep into the forest.

The next day, when the chimpanzee met this uncle again, he asked him who had been killed. The monkey replied that no one was killed. The chimpanzee then said "You see uncle, I did well to flee!"

(Préfecture: Kérouané, Sous-Préfecture: Sibiribaro)

It happened one day that a female chimpanzee exchanged her baby for that of a woman's baby. Eventually, the chimpanzee returned the woman's child but the woman had killed the baby of the chimpanzee. That is why since this day chimpanzees have never liked women.

(Préfecture: Gaoual, Sous-Préfecture: Kakony)

There are several legends and proverbs that speak about chimpanzees liking to give "punches on the back"...

A big party was organised one day in a village called Konfoya. Demui, the chimpanzee informed of this gathering decided to go along. The big day arrived. Demui put on his big boubou for the party. On the road on the way to the party, he was stopped by Boukt the starving hyena who was lying in wait next to the road. Boukt asked the chimpanzee "Demui, where are you going?" The chimpanzee replied "I am going to the party."

The hyena was too scared to attack the chimpanzee who simply continued along the road. The hyena went into the bushes and ran ahead to wait again for the chimpanzee who, upon reaching the hyena, was questioned for the second time: "Chimpanzee, where are you going?" The chimpanzee replied "I am going to the party." Still the hyena was too scared to attack and he ran ahead once again.

Finally the third time the hyena felt he finally had the courage to attack the chimpanzee. The third time, he approached the chimpanzee again to ask him the same question: "Demui, where are you going?" but before the hyena could attack, the chimpanzee grabbed the hyena and gave him 3 punches on the back, saying " I am going to the party, I am going to the party, I am going to the party!" The hyena responded crying "I understand, I understand, I understand!!!" and he defecated all over the boubou of the chimpanzee before he could escape.

(Préfecture: Boké)

One day a chimpanzee decided to kill his bull and give the meat to his neighbours in exchange for the opportunity to give punches. One kilogram of meat was equal to 3 punches on the back. The first candidate was Leck the rabbit. The date and the hour of to give the punches was known by both parties.

Finally, the day arrived. The rabbit prepared a big plate of rice and meat and went to find none other than N'golo the monkey who was jumping from branch to branch in search of food. Leck the rabbit greeted his friend the monkey. "Poor monkey what are you doing here?" N'golo replied "I am looking for food". The rabbit said to him "if you are not under a curse come down and come with me and you can eat your fill. There is

rice and meat at my house". No sooner said than done, the monkey came down from the tree and went to feast at the rabbit's house.

Just after the monkey had finished eating, the chimpanzee arrived. The rabbit said to the monkey "I have to go somewhere but I will come back shortly so wait for me here. If someone comes to the door and says "Assalama lekum", then reply "Malekum salam"" Then the rabbit left.

Several minutes after the departure of the rabbit, the chimpanzee came to the door and said: "Assalama lekum". The monkey resplied from the inside "Malekum salam". The chimpanzee said "I have come". The monkey opened the door. The chimpanzee grabbed the monkey. He gave him one punch and the monkey died on the spot.

The second victim was the duiker who had a similar fate to the monkey. The third victim was the porcupine. The porcupine however, refused to be left alone in the house. Leck the rabbit went to the door and said in a deep voice to the porcupine "I have an old pair of shoes underneath the bed so please throw them outside." The chimpanzee was still at the door. The rabbit quickly returned underneath the bed only leaving his ears sticking out. The porcupine picked up the long ears of the rabbit thinking it was the old pairs of shoes, and threw them outside.

Now the porcupine was left alone in the house. The chimpanzee was now outside. The porcupine tried in vain to get out but he was captured by the chimpanzee who gave him a punch on the back. All the quills stuck into the arm of the chimpanzee. The rabbit then came out from where he was hiding to mock his friend the chimpanzee.

(Préfecture: Boké)

During a famine, all the chimpanzees got together and decided to slaughter their bull and give the meat to their neighbours in exchange for punches. The hyena took meat for his father in law and when it came time to pay up, he got 10 punches. He couldn't take any more, he got his father in law to come and collect the 10 other punches!

(Préfecture: Tougue, Sous-Préfecture: Fatako)

In Guinée Forestière there are many legends about why chimpanzees don't eat Cola nuts...

A long time ago chimpanzees used to eat Cola nuts. One story goes that a chimpanzee once passed a night in a Cola tree but he kept knocking his head on the bumps on the tree each time he sat up. He never ate Cola nuts again.

(Préfecture: Kérouané, Sous-Préfecture: Soromaya).

Another story goes that the chimpanzee spent a whole night staroing among the branches of a Cola tree , with the Cola fruits suspended above his head. Some say that all night he was constantly knocking his head on the fruits. He wanted to eat them but he didn't see them. When he came down from the tree in the morning he saw the fruits hanging where he had been sleeping and he decided never to eat Cola nuts again!

(Préfecture: Guéckédou, Sous-Préfecture: Fangamadou and Tekoulo and Bolodou)

The chimpanzee abandoned the Cola out of forgetfulness

(Préfecture: Guéckédou, Sous-Préfecture: Ouendé Kenèma)

A long time ago, a prince fell ill and the fetisher said that what he needed was the juice of oranges or he would die. In this kingdom there was a marsh inhabited by hippopotamus, crocodiles and pythons. In the

middle of the marsh was an orange tree in which there were chimpanzees. "These chimpanzees" declared an old wise man, "were transformed from humans and therefore gifted with the ability to analyse. If you throw them stones, they will respond by throwing oranges." No sooner said than done and the oranges were received to save the Prince.

(Préfecture: Gaoual, Sous-Préfecture: Koumbia)

Similarly...

If you see a chimp in the middle of a tree in the middle of water, you throw a stone at the chimp so he'll throw an orange back at you.

(Préfecture: Pita, Sous-Préfecture: Commune Urbaine)

One proverb goes:

"In dividing something good, always take what is in front of you."

To illustrate the proverb a story is told:

A sacrifice took place in a kingdom after the construction of a mosque. The blacksmiths were dividing up the meat given to them but one of them snatched a juicy piece of red meat with no bones and hid it under his bottom. After several countings, the other blacksmith noticed that one piece of meat was missing. A curse was placed on he who had stolen the meat. Upon returning to his house, the thief was transformed into a chimpanzee and since then he hides his bottom from humans!

(Préfecture: Gaoual, Sous-Préfecture: Koumbia)

A long time ago in a village during a war, a woman forgot her baby . When her husband returned, he found a female chimpanzee nursing the baby. That is why, since that day that the people of the village protect chimpanzees.

(Préfecture: Kérouané, Sous-Préfecture: Soromaya).

In order to correct the aggressiveness of Man compared to Women, chimpanzees stocked up piles of fruits of Carapa procera next to the road. The chimpanzees let all women who were passing by collect the fruit, but stoned all men who tried to touch the fruit.

(Préfecture: Kankan, Sous-Préfecture: Commune Urbaine)

Chimpanzees and humans have the same number of fingers. The chimpanzee says that you may not have the same number of fingers as he and if you show him your fingers he will reduce them by one. Whenever you encounter a chimpanzee therefore, you must hide one finger in fear that he might steal one.

(Préfecture: Télémélé, Sous-Préfecture: Kollet)

Chimpanzees will never pass two nights in the same nest because they are afraid of scorpions, their principal enemy.

(Préfecture: Kankan, Sous-Préfecture: Boula)

The chimpanzee is a human being except that he does not wear trousers.

(Préfecture: Lola, Sous-Préfecture: Bossou and Foumbadou and Nzo)

Chimpanzees may approach a village but they are too ashamed to enter

(Préfecture: Koundara, Sous-Préfecture: Commune urbaine)

If the chimpanzee is under water, he will soon resurface.

(Préfecture: Forecariah, Sous-Préfecture: Moussaya)

According to the elders...a ceremony of circumcision was organised one day in a village. Certain individuals amoung them got scared and fled into the forest where they stayed to become chimpanzees.
(Préfecture: Forecariah, Sous-Préfecture: Sikourou: Loma)
(Préfecture: Yomou, Sous-Préfecture: Pela and Dièke)

If you see a chimpanzee carrying a basket full of ripe bananas on his head, say to yourself his belly contains more than the contents of the basket.
(Préfecture: Yomou, Sous-Préfecture: Dieke)

Similarly...

If you see a chimpanzee carrying a sac of corn, tell yourself that what is in his belly is already big.
(Préfecture: Boffa, Sous-Préfecture: ? Proverb Guerzy)

If you see a banana on the head of a chimpanzee, look at his stomach
(Préfecture: Kankan, Sous-Préfecture: Moribaya)

If you see a chimpanzee walking to the market with a bunch of bananas on his head, it is at this moment pointless to ask if he has eaten or not.
(Préfecture: Kouroussa, Sous-Préfecture: Cissela)

One day a hunter came upon a chimp in a cave. The hunter aimed his gun at the chimp. The chimp lifted up his right arm to show that she had a baby. The hunter then continued to aim so the chimp jumped up and stole the rifle from the hunter.
(Préfecture: Tougué, Sous-Préfecture: Kollet)

In order to prevent being attacked from your enemy, you must have an arm more rapid than a chimpanze.
(Préfecture: Tougue, Sous-Préfecture: Commune Urbaine)

One day a hunter put a trap next to a source of water. A chimpanzee got caught in the trap. He was able, however, to free himself. He moved the trap onto the path of the hunter and then he hid. The hunter arrived and got caught in the trap. The chimpanzee came out from where he was hiding and cried with joy before he ran off.
(Préfecture: Mali, Sous-Préfecture: Balaki)

Even if you don't like the chimpanzee, do not tell him that his teeth are red.
(Préfecture: Dinguiraye, Sous-Préfecture: Diatifere)

One day in the dry season a hunter surprised a couple of chimpanzees eating honey from the crevice of dry wood. The female chimpanzee saw the hunter, gathered up some honey and quietly left without telling the male. The hunter stood where the female had been and then said to the male in a very loud voice: "That is enough!!". The male chimp screamed and ran off into the forest.
(Préfecture: Faranah, Sous-Préfecture: Commune Urbaine)

The day that you find the corpse of a chimpanzee, is the day when an old woman will get lost.
(Préfecture: Boffa, Sous-Préfecture: Liso)

...as rapid as a punch from a chimpanzee
(Préfecture: Mamou, Sous-Préfecture: Kegneko)

or

...as strong as a chimpanzee
(Préfecture: Mamou, Sous-Préfecture: Dounet)
(Préfecture: Kankan, Sous-Préfecture: Moribaya)

The chimpanzee says "I am ugly but strong"
(Préfecture: Fria, Sous-Préfecture: Commune Urbaine)

"Chimpanzee!" Why are you bowlegged? "Because I grew up between two parents and I didn't want to touch either of them."
(Préfecture: Kankan, Sous-Préfecture: Sabadou baranamo)

The chimpanzee always imitates his opponent in a combat
(Préfecture: Beyla, Sous-Préfecture: Foulah)

It happened on time, during a funeral in a village, that two antelopes next to a village transformed themselves into two young women so that they could enter the village. Now, there was a hunter next to the road and he saw the antelope turning into the young ladies and saw them hide their secret under a Uapaca tree. Now the hunter took their secret and brought it to his house.

When the antelopes were transformed in the village it was said that they had come for the funeral, that they were very beautiful but they would not accept any friends. Now the hunter, given that he had already stolen their secret went to provoke the young ladies saying that he wanted to show them his house. The young ladies, wanting to return to the forest, went to transform themselves back into the antelopes again. Now, arriving at the Uapaca tree they could not find their secret. Both had the same thought. They said "did not the hunter who called us to his house not take our secret. Lets go to see him."

Now the hunter, he was celibate. At that time women were not numerous. The hunter asked them to marry him. The two women could not marry one man at the same time so they separated and only one of them married the hunter.

After three years, the first fell pregnant. During all this time, the two women always sought to have their secret from the hunter so that they could flee once again into the forest. One night the hunter told his wife where he had hidden their secret. Now the young girl, even though she was pregnant left with her friend to find their secret, in the early morning while her husband was going to harvest his palm wine. They went directly into the forest and transformed themselves back into antelopes. Given that the women was pregnant by a human, her baby became a chimpanzee and that is the origin of chimpanzees.
(Préfecture: Macenta, Sous-Préfecture: Seredou)

APPENDIX XII. RESULTS OF QUESTIONNAIRE ON LARGE MAMMALS

0 = Absent
1 = Rare
2 = Moyennement Présent
3 = Abondant

		Chimpanzé	Cynocéphale	Patas	Cercocèbe	Colobe de Van Beneden	Colobe blanc et noire	Cercopithèque diane	Colobe bai	Pétauriste	Singe vert	Mone	Hocheur	Potto	Galago	Cobe de Buffon	Grab harnaché	Gazelle à front roux	Redunca	Céphalophe de Grimm	Céphalophe à dos jaune	Céphalophe de Jeninck	Céphalophe bai	Céphalophe noir	Céphalophe d'Ogilby	Céphalophe à flanc roux	Céphalophe bleu	Céphalophe sélevé	Antilope royale	Cheval	Buffle d'Afrique	Buffle nain	Eland de Derby	Hippotrague	Cobe défaux	Damalisque	Bubale	Ourébi
DALABA	BODIE	2	3	3	0	3	2	0	0		3	0	2		2	0	1	1	0	0	2	0	0	0	0	2	2	0	2	1	0	0	0	0	0	0	0	0
DALABA	DALABA CENTRE	2	3	3	0	0	1	0	1	0	0	0	0	0	0	2	3	0	0	0	0	0	2	2	0	3	0	0	2	2	0	0	0	0	0	0	0	1
DALABA	DITINN	3	3	3	2	2	3	0	1	1	3	0	2	0	2	0	1	0	0	0	1	0	0	0	0	2	2	0	2	1	0	0	0	0	0	0	0	2
DALABA	KALA	2	2	2	0	0	1	2	2	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
DALABA	KANKALABÉ	2	3	3							3				2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DALABA	KEBALY	2	2	2	2	2	1	0	0	0	2	0	0		0	2	2	2	2	2	2	2	0	0	2	2	0	2	1	0	0	0	0	0	0	0	0
DALABA	KOBA	3	3	3	0	0	2	0	3	3	3	1	3		0	2	0	3	0	0	2	3	2	3	3	0	3	2	0	3	3	3	0	0	0	2	0	0
DALABA	MAFARA	2	3	3	2	1	0	0	0	0	2	0	0	0	0	0	0	2	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
DALABA	MITY	1	2	2	2	1	2	1	2	2	1	1	1	0	0	0	2	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
DALABA	MONBEYAH	2	2	2	1	2	2	0		0	3	0	2	0	2	0	2	2	0	0	2	0	0	0		2	2	0	2	2	0	0	0	0	0	0	0	0
GAOUAL	FOULAMORY		3	3	2	2	2	2	2	2	2	1	1	1	2	2	2	0	1	2	2	2	2	2	2	2	2	2	1	2	2	0	2	1	1	0	1	1
GAOUAL	GAOUAL CENTRE	3	3	3	0	0	0		2							2	2	2	2	2	0	0								2	0	0	0	0	0	0	1	
GAOUAL	KAKONY	3	3	3	0	1	3	0	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
GAOUAL	KOUMBIA	3	3	3	2	3	2	2	2	3					2	2	2	3	2		2	2	3			2	3		2	2	2	2		2				
GAOUAL	KOUNSITEL	2	3	2	0	0	1	0	0	1	2	0	0	0	0	1	1	0	0	0	1	0	0	0	1	2	1	0		0	0	0	0	1	0	1	0	1
GAOUAL	MALANTA	2	3	3	0	2	3	3	3	0	0		3	0	0	0	2	2	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
GAOUAL	TOUBA	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	1	0		0	1	2	2	2	2	2	0	0	0	0	0	0	0
GAOUAL	WENDOU M'BOURE	2	3	3	0	3	3	3	3	3	0	1	3	0	0	3	3	2	2	3	3	3	3	3	0	3	0	0	3	3	2	2	2	2	2	2	2	2
KOUBIA	FAFAYA	2	2	3	0	0	0	3	0	0	3	0	0	1	1	0	1	0	0	1	1	0	1	1	0	1	0	0	0	1	1	0	0	1	0	0	0	0
KOUBIA	GADA-WOUNDOU	3	3	3	1	1	1	1	1	1	2	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	2	3	3
KOUBIA	KOUBIA CENTRE	2	2	3	0	0	0	3	0	0	3	0	0	1	1	0	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
KOUBIA	MATAKAOU	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KOUBIA	MISSIRA	2	3	3	/	/	/	/	/	/	3	/	/	/	/	/	/	/	/	/	/	/	/	/	/	1	/	/	/	/	/	/	/	/	/	/	/	/
KOUBIA	PILLIMINI	1	1	3	2	0	3	0	0	0	0	0	0	3	0	0	2	0	0	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0
KOUNDARA	GUINGAN																																					
KOUNDARA	KAMABY	0	3	3	3	2	0	2	1	2	3	2	1	0	3	1	1	0	1	1	1	1	0	1	1	1	1	0	1	0	1	1	0	1	1	1	0	2
KOUNDARA	KOUNDARA CENTRE	0	1	2	0	0	0	0	0	0	2		0	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
KOUNDARA	SAMBAILO																																					
KOUNDARA	SAREBOIDO	2	3	3	3	3	2		2		3			1	1	2	2	1	1				1		1			1	1	2	2			1	1		1
KOUNDARA	TERMESSE																																					
KOUNDARA	YOUKOUNKOUN																																					
LABE	DALEIN	2	3	3		3	3	3	3	0	3	3	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
LABE	DARALABÉ	2	2	2	1	1	1	1	2	2	2	0	0	0	1	1	1	0	0	0	0							1	2	1	1							
LABE	DIARY	3	3	3	1	1	2	1	0	3	1	1	2	2	2	1	2	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1		0	1	
LABE	DIONFO	1	1	2	0	3	2	0			1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LABE	GARAMBÉ	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	1	1	1	1	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0
LABE	HAFIA	0	2	3	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LABE	KALAN	2	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		Lion	Léopard	Hyène rayée	Hyène tachetée	Lycaon	Chacal	Chat sauvage	Caracal	Serval	Chat doré	Genette	Nandinie	Poème	Civette	Zorille	Balai	Mangouste	Loutre	Aardvark	Porc-épic	Rat de Gambie	Aulacode	Hérisson	Daman	Lièvre	Pangolin Géant	Pangolin	Phacochère	Potamochère	Hylochère	Orycérope	Hippopotame pygmée	Hippopotame	Eléphant	Lamantin
DALABA	BODIE	0	1	0	1	0	2	1	0	0	0	2	0	0	2	0	0	2	2	1	2	2	0	0	0	3	2	1	2	0	0	2	1	0	0	0
DALABA	DALABA CENTRE	0	1	2	1	0	3	1	0	0	1	2	0	0	3	0	0	0	0	1	3	0	2	2	2	3	0	0	3	3	3	0	1	0	0	0
DALABA	DITINN	0	1	0	2	0	2	2	0	0	2	0	0	2	0	0	2	0	2	2	2	1	0	1	3	0		2	0	0	1	0	0	0	0	0
DALABA	KALA	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
DALABA	KANKALABÉ	0	0	0	1	2	0	0	1	1	1	0	0	1	0	0	1	0	0	1	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0
DALABA	KEBALY	1	1	2	2	0		0	2	2	2	2	0	0	2	0	0	2	0	1	2	2	1	1	2	3	0	2	2	0	0	0	0	1	0	0
DALABA	KOBA																																			
DALABA	MAFARA	0	2	2	2	0	3	2	2	0	0	0	0	0	0	0	2	0	0	2	2	2	0	0	0	2	0	1	3	0	0	0	0	0	0	0
DALABA	MITY	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0
DALABA	MONBEYAH	0	0	0	0	0	3	2	1	2	2	3	0	0	2	0	0	2	0	2	2	2	0	1	1	3	0	1	3	0	0	1	0	0	0	0
GAOUAL	FOULAMORY	1	1	2	2	1	2	2	1	2	2	1	1	1	1	1	1	2	2	2	3	3	2	2	2	3	2	2	3	1	1	1	2	2	0	0
GAOUAL	GAOUAL CENTRE	2		1	1		3	3	3		0	2			2	2					3	3		3	2	3				0	0		3	3	0	0
GAOUAL	KAKONY	0	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0	2	3	0	2	0	1	3	3	3	0	0	0	0	0
GAOUAL	KOUMBIA	1		2	2		3	3		3	3	3	2	3	3	1	2	2	2		3	3		3	2	3	3	2	3	3	2	3	2	3	1	2
GAOUAL	KOUNSITEL	1	1	0	0	1	2	2	1	1	1	1	1	1	2	2	0	2	0	1	1	1	2	0	1	1	0	0	3	1	0	1	1	1	0	0
GAOUAL	MALANTA	0	3	0	0	0	3	3	0	1	3	2	1	2	3	0	0	1	3	3	3	3	2	1	3	3	3	3	3	2	0	0	0	0	0	0
GAOUAL	TOUBA	0	0	0	0	1	2	1	0	0	1	2	2	2	2	2	2	2	2	2	1	1	2		2	2	2	3	2	2	0	1	0	0	0	0
GAOUAL	WENDOU M'BOURE	1	1		2	0	3	3	0	0	0	0	3	3	0	0	2	0	3	3	3	2	3	2	3	3	3	3	3	2	3	3	3	0	0	0
KOUBIA	FAFAYA	2	1	2	2	0	2	0	0	0	1	2	0	0	2	0	0	2	1	1	2	0	0	1	2	1	1	3	2	0	1	0	2	0	0	0
KOUBIA	GADA-WOUNDOU	3	3	2	2	1	3	2	2	2	2	2	1	1	2	1	2	1	1	1	3	2	2	3	3	3	1	1	3	2	1	1	3	3	2	0
KOUBIA	KOUBIA CENTRE	2	1	2	2	0	2	1	0	0	1	1			0	0	2	0	1	1	2	2	1	1	2	0	0	2	2	2	0	2	0	0	0	0
KOUBIA	MATAKAOU	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	2	1	0	1	2	1	0	0	2	0	0	2	0	0	1	0	0	0	0	0
KOUBIA	MISSIRA	/	/	/	/	2	3	/	/	2	/	/	/	2	2	/	/	/	/	2	3	/	/	/	/	/	/	3	/	/	/	/	/	/	/	/
KOUBIA	PILLIMINI	0	1	3	1	1	2	2	2	2	1	1	0	0	0	0	0	0	2	2	2	2	0	0	0	3	0	0	3	0	0	0	0	0	0	0
KOUNDARA	GUINGAN																																			
KOUNDARA	KAMABY	0	1	1	0	2	3	3	3	2	3	3	2	2	3	1	1	3	1	1	3	1	0	0	3	0	0	3	2	3	1	1	1	0	1	
KOUNDARA	KOUNDARA CENTRE	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0
KOUNDARA	SAMBAILO																																			
KOUNDARA	SAREBOIDO	1		2	2	1	2	2	1	1	2	2	1	1	1					2	3	2	3	3	3	1	1	3	3	3		2	2		2
KOUNDARA	TERMESSE																																			
KOUNDARA	YOUKOUNKOUN																																			
LABE	DALEIN	0	1	0	0	0	2	1	0	1	1	1	0	1	0	0	0	0	0	2	0	0	2	0	3	0	0	2	2	2	0	0	0	0		
LABE	DARALABÉ	0	0	0	0	1	2	2	1	2	2				2		1	1	1	1	3	2	2	2	3	0	0	2	1	0	1	0	0	0	0	0
LABE	DIARY	0	0	0	0	0	2	1	2	0	1	2	2	1	1	0	1	1	2	2	2	1	2	1	2	0	0	1	0	0	0	0	0	0	0	0
LABE	DIONFO	0	0	0	0	0	3	0	0	0	1	1	0	0	2	0	0	1	0	1	2	0	1	0	2	0	0	1	0	0	0	0	0	0	0	0
LABE	GARAMBÉ	0	0	0	0	0	3	2	0	3	0	3	2	2	3	0	0	2	3	2	3	3	2	1	2	3	0	0	0	0	0	0	0	0	0	0
LABE	HAFIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	2	2	0	3	0	0	0	0	0	0	0	0	0	0
LABE	KALAN	0	0	0	0	0	2	2	0	0	0	0	0	2	0	0	2	0	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0

LABE	KOURAMANGUI		3	3	3	3	3			3	3	3	3	3	3	3														2	✓									2	2			2					2			2				2	2																
LABE	LABÉ CENTRE	2	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
LABE	NOUSSY	3	0	3	3	2	2	2	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	2	1	3	3	3	3	1	1	2	2	0	0	3	1	1	1	3	0	0	0	0	0	0	0	0	0	0
LABE	POPODARA	2	0	3	0		1	0	0	2	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1		1	2	1	1	2	0		0	1	1	0	2		1	2	0	2	1	1	0	0	0	0	0	0	0	0
LABE	SANNOUN	0	3	3	1		1	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		0	1	3	0	0	3	0	2	2	0	2	2	2	0	1		2	0	0	0	0	0	0	0	0	0	0
LABE	TOUNTOUROUN	2	2	3	3	3	2	2	3	3	3	3	3	3	2	0	1	1	1	1	1	1	1	1	1	1	1	2	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
LELOUMA	BALAYA	2	3	3	2		1									0	1	1					1	1	1	1	1				0	0	0	0	0	0	0		0	0	0			2	1			2										2					2			2				0	0	0	
LELOUMA	DIOUNTOU	2	3	3	2		2	2					2		1	1													1													1		1	1										1				1			1	2			1							
LELOUMA	HÉRICO	2	3	2	0	0	1	0	1	0	1	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0		3	1		0	0		0	0	0	0	0	0	0	0	3	3	1	0	0	3	3	1		1	1	0	0	0		0
LELOUMA	KORBÉ	3	3	3	2	2	2	2	2	2	3	2	2	0	2	2	2	1	1	1	2	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	0	1	0	0	1	0	0	0	1	3		0	0	3	0	1	2	0	0	0	0	0	0	0
LELOUMA	LAFOU	1		2		2					2				2	1	2	2		1	1	1	1																					1	1		2	2									2	2	3	3		2	2	2	2								
LELOUMA	LELOUMA CENTRE	2	3	2	2	1	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	1	0	0	0	1	1	0	1	1	1	0	0	1		1	0	1	0	1	2	1	1		2	0	0	2	2	2	0	2	2	0	0
LELOUMA	LINSAN	2	2	3							3						1							1		1														1				1	2												1	1					2	1		3							
LELOUMA	MANDA SARAN	2	2	2				3							2		1			1	1			2																				2					1			2			2			2		2	2		2	1		2	2	2					
LELOUMA	PARAWOL	2	3	3	3	2	2	0	3	0	3	0	0	0	0	1	1	1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	2	2	0	0	0	2	0	0	0	1	0	1	0	1		0	0	0	0	3	0	0	0	0	0	0	0
LELOUMA	SAGALÉ	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3					1	1	1	1	1	0	3	3	0	0	0	0	0	0	3	3	0	1	0	0	0	0	0	0	0	0	3			3	3		3			3		3						3		3	0	0	0	0	0
LELOUMA	THIAGUEL BORY	2	3	3							3																																	1														2				2				3							
MALI	BALAKI	2	3	3	3	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	3	2	0	0	0	0	0	2	0	1	3	3	0	3	0	3	3	3	3	0	3	3	0	0	0	3	0	0	3	0	0	0	0	0	3		3	0	0	3	3		3	3	0	3	3	1	0	0
MALI	DOUGOUNTOUNY	2	2	2	1	1	1	1	1	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1		1	0	1	0	1		1							0	0	0	0	0								
MALI	DOUNGUEL SIGON																																																																									
MALI	FOUGOU	0	3	2	1	0	1	1	0	2	2	3	3	0	3	2	2	1	0	0	1	1	1	1	1	1	1	1	2	0	0	0	0	0	0	0	0	2	0	1	0	0	0	2	2	1	1	1	3	2	2	3	2	2	1	2	2	2	3	1	2	2	3	1	1	2	2	2	1	0	0	0	0
MALI	GAYA	3	3												2		2	2																					0	0		0		2	3								2			2								2		2							
MALI	HYDAYATOU	1	3	3	1	0	0	0	0	0	2	2	0	1	3	2	1	2	0	0	0	0	0	X	0	1	0	0	0	0	[illegible]	1	2	3	0	0	1	2	2	2	2	3	0	2	2	0	0	3	1	0	0	0	0	0	2	3	2	1	0	3	2	0	3	1	2		0	0	0		0	0	0
MALI	LÉBÉKERÉ	2	3	3	0		0	0	0	0	1	0	0	0	2	0	1	2	0	0	2	0	0	0	0	0	0	0	0	2	1	0	0	0	0		0	2	2	2	2	2	0	2	1	0	0	0	0	1	0	2	0	0	1	1	0	2	0	0	0	0	2	1	1	3	2	1	2	0	2	0	0
MALI	MADINA SALANBADE	2	3	3	0	0	2	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0		1	0	1	1	0	0	2	3	1	0	0	0	0	0	0	2	1	0	0	0	0	2	0	2	1	0	2	0	0	3	2	0	0	0	2	0	0
MALI	MADINA WORA	1	3	3	2	2	3	2	2	2	2		3			2		2	1																									3														2			1		1			3							
MALI	MALI CENTRE	2	3	3	1	0	2	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	2	1	0	1	1	0	2	1	2	0	0	3	0	0	0	0	0	0	3	1	0	0	3	0	0	3	0	2	0	1	0	0	0
MALI	TÉLIRE	2	3	3	3	2	3	3	2	2	0	3	2	0	1	0	0	1	0	0	0	1	1	1	1	0	1	2	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	3	0	2	2	1	1	2	0	0	0	0	1	1	3	3	1	0	2	2	2	2	0	0	1	0	0	0	0
MALI	TOUBA BAGADADJI	3	3	3	1	3	2	1	1	0	3	3	3	0	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	0	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	2	1	1	1	2	1	1	3	3	1	1	0	0	0	0
MALI	YEMBERING												Néant																																																												
MAMOU	BOULIWEL	0		0	0	0	1	0	0	0	0	0	0	0			1	1	1		2	1	1	1	1	2			2	1	1	1	1	0	0	0	0	0	0		0	0	0	1	0	0	0	0	0	0	0	1		1	1	1		2		1	1	1	1	2			2	1	1	0	0	0	0
MAMOU	DOUNET	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2	2	2	2		1	1	1	1	1	1		0	1		0	0	1	1	1	1	1	2	0	1	0	0	2	2	2		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	2	2	0	0	0	0	0	0
MAMOU	GONGORÉ	2	3	3	3	2	2				3																														2									2		2																					
MAMOU	KEGNEKO	2	3	3	2	2	2	2		2	3		2	2	3	1	1	1	1	1	1	1	1	1	2	2		2	1	1	1	0	0	0		1	1	3	0	1	1	2		1	2	1	1	1	2		3	3	0	1	1	2	3	2		3	3		2	0	0	3	3	1	1	1	0	0	0
MAMOU	KONKOURÉ	2	3	3	1	1	1	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	3	0	0	3	0		0	1	0	0	0
MAMOU	MAMOU CENTRE	3	3	3	3	3	1		2	2	1	2	3	0	1	2	2	1	0	2	2	2	2	2	1	1	1		0	1	1	1	0	0	0	0	0	1	0	1	1	1	0	1	1	0	0	0	1	0	1	1	0	0	0	0	1	1	0	2	2	0	2	1	1	3	3	3	0	1	1	0	0
MAMOU	NIAGARA	0	3	3	2	2	1	1	1	0	0	0	1	0		2	2	1	2	2	1	1	1	2	1	2	0	0	1	1	0	0	0	0	0	0	1	1			1	2	1	2	2		1	2	2	1	2	2	1	2	2	3		3	3	2	2	3	3	2	2	1	1	1	1	0	2	0	0
MAMOU	OURE KABA	2	3	3	2	2	1	1	1	1	3	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	1	1	1	1	1	0	1	2	2		2	2	1	0	0	1	2	2	2	1	1	2	2		2	2	2	0	1	2	2	2	2	2	2	0	2	2	0	0
MAMOU	PORÉ DAKA	2	3	3	3	3	3	2	2	0	0	0	0	1	1	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	1	2	2	2	3	0	2	2	2	3	0	3	0	3	0	2	3	2	0	0	0	0	0	0	
MAMOU	SARAMOUSSAYA	2	3	2	2	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	1	2	0	0	0	0	0	0	2	0	0	0	2	1	2	3	0	0	0	2	0	0	1	0	0	1	0	0	0	0
MAMOU	SOYA	2	3	3	3	3	3	3	3	3	1					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0
MAMOU	TEGUEREYA	2	3	3	3	3	2	1	2	3	3	3	3	1	3	2	2	2	2	2	2		2	2	2	2	1	2	2	2	1	0	0	1	1	1	1	1	1	2	3	3	0	2	2	1	2	2	2	2	2	1	1	1	1	1	3	3	3	2	3	2	3	1	1	3	3	3	1	0	1	0	0
MAMOU	TIMBO	2	3	3	1	1	2																										1									1		2							3						1	3	3			3			3						1		
MAMOU	TOLO	2	3	3	3		2	2	2						1		1	1																														1			1	1				1		1	1				1			1							
PITA	BANTIGUEL	0	1	3	1	1	1	0	0	0	3	1	1	3	3	0	1	0	0	0	0	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	3	0	1	0	0	0	1	3	3	1	0	3	3	3	2	0	0	0	0	1	3	3		3	0	3	0	0	0	0	0	0	0	0	0	0
PITA	BOUROUWAL TAPE	2	2	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	2	1	2	1	0	1	0	0	0	0	0
PITA	DONGHOL TOUMA	2	3	3	0	0	1	0	0	0	3	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0	3	0	0	2	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0

PITA	GONGORE																																																																							
PITA	LEY MIRO	2	3	2	1	1	1	0	0	0	2	0	0	0	1	0	1	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	1	0	1	1	0	2	0	0	0	0	0	1	1	1	1	0	2	1	1	1	1	1	1	1	0	0	0
PITA	MACI	3	3	3	3	3	3	3	3	0	3	3	3	1	1	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0		3	0	3	0	0	0	1	3	0	3	0	0	0	0	1	0	1	3	0	3	3	3		3	3	3	0	1	3	3	3	0	0	0	0	0
PITA	NINGUELANDÉ	1	0	3	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0				2								1						1			1		2	0	0	1				0	0	0	
PITA	PITA CENTRE	1	2	1	1	1	0	0	1	1	2	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0
PITA	SANGAREYA	3	3	3	2	1	0	0	0	0	2	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	0	1	1	0	1	0	1	0	0	1	0	0	1	0	0	1	1	1	1	0	1	1	1	2	1	1	1	1	0	0	0
PITA	SINTALY	0	1	2	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PITA	TIMBI MADINA	2	2	3	2	1	2	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0		0	0	1	0	0	0	0	0	0	0
PITA	TIMBI TOUNNI	1	2	3	1	1	0	0	0	0	2	0	0	0	0	2		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
TOUGUE	FATAKO	2	3	3	0	3	0	0	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	2	0	1	0	2	2	0	0	3	0	1	2	3	2	2	0	2	0	2	2	0	2	1	0	0	0	0
TOUGUE	FELLO KOUNDOUMA	2	2	3	1	1	0	0	0	0	0	1	1	1		1	1	2	1	2	1	1		1	1	2	0	0		1	0	0	0	0	0	0	0	0	1	1	1	1	1	2	2	1		1	2	2	2	1	1	1	1	1	1	1	3	1	1	1	2	1	1	3	3	3	0	0	0	0	0
TOUGUE	KANSAGUI	3	0	3	0	2	0	0	0		3	0	0	0	3	2	0	0	0	0	2	0	1	2	1	2	0	0	1	2	0	0	0	0	0	0	0	0	1	1	2	2	0	3	3	0	1	3	1	1		3		2	3	2	2	3	3	3	3	0	3	0	0	3	1	1	0	2	2	0	0
TOUGUE	KOIN	2	0	3	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0	0	1	0	1	1	1	2	1	2	0	0	0	2	0	0	2	0	0	1	0	2	0	0
TOUGUE	KOLLAGUI																																																																							
TOUGUE	KOLLET	2	3	3	3															1										1	1	0	1		1					1	2	1			2	1															1						2			3				2		0	
TOUGUE	KONAH	2	3	3	3	3	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	2	1	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0	3	0	0	0		1	0	0	0	0	0	0	0	0	0
TOUGUE	KOURATONGO	2	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0		1	1	1	1	1		1	1		1	2	0	1	0	0	0	0	0	1	1	0	1	2	0	1	1	0	1	1	1	0	0	1	0	2	1	0	1	2	1	2	2	1	2	1	0	3	1	2	1	0	0	0	1
TOUGUE	TANGALY	2	3	2	0	0	1	0	1	0	2	0	0	0	2	1	2	0	0	0	1	0	0	0	0	0	0	0	2	2	1	1	0	0	0	1	0	0	2	2	2	1	1	2	2	0	2	2	1	1	1	2	0	0	2	2	2	2	2	2	2	2	3	2	2	3	1	3	1	2	0	0	1
TOUGUE	TOUGUE CENTRE	2	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BEYLA	BEYLA CENTRE			2							3						1				2								3	2	2		2						0	0	0	0		2					2						3			1		3	1		3			3					0	0	2
BEYLA	BOLLA	0	0	2					2		3				3		2				1		1	1		1			3	2	3		2						0	1	0	0		2	1				2			2			3	1		3		3			3	1	2	2		2			2	1	
BEYLA	DIARAGUETELA	0	0	3							3						2				3								3		2		3						0	0	0	0		2					2							3	2		2		3	2		3			3					3	0	
BEYLA	DIASSOUDOU	0	1	2			2													1																						1																	1			1		3							3						
BEYLA	FOUALA	0	1	2							2						2	1			1								3				1						0	0	0	0		1			1		1			2			3			1		3	2		2			2					0	0	
BEYLA	GBAKEDOU	0	3	3	1	0	0	0	0	0	0	0			3	3	3	2	1	0	0	0	2	2	3	3	3	2	3	2	1	1	1	0	0	0	2	0	0	1	1	1	0	0	1	1	2	2	2	1	1	2	2	0	0	2	2	2	3	3	2	1	3	1	1	3	2	2	2	1	1	0	0
BEYLA	GBESSOBA	0	2	3							3					2	2		2	2	2			2	1				3	3	2		2						0	1	0	0		2	1				2			2			3	2		3		3	2		3		1	3	2				3	0	0
BEYLA	KARALA	0	2	3																		2										1								2							2														3		3	3		3		3							
BEYLA	KOUMANDOU		1	1																		1																					1					1											2					2			3			3							
BEYLA	MOUSSADOU	0	2	2							2						2			1	1								3	2			2						0	1	0	0		1	1		1					2			3			2		2	2		2			2			2	2	3	0	
BEYLA	NIONSOMORIDOU																																																																							
BEYLA	SAMANA	0	2	3	3	2	0	0	3	0	3	0	0	1	3	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	2	2	0	1	0	3	0	0	2	0	0	0	2	1	2	3	3	0	0	3	3	0	3	0	0	2	1	2	0	0
BEYLA	SINKO	0	2	2																		1																																							2																
BEYLA	SOKOURALA		1	2																		1																					1					1															1			2			3							
GUECKÉDOU	BOLODOU	2	3	3		3	3	3	3		3	3			2	1	2															3	3	2	1	1			3		1				3	3	2	2			3					2		3	3	3	3	2	3	1	2	3	3	3					
GUECKÉDOU	PANGAMADOU	0	0	0	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0																		3	3	1	2	0	1	0	0	0	0	0	0	0	0	0
GUECKÉDOU	GUEKEDOU CENTRE																																																																							
GUECKÉDOU	GUENDEMBOU	1	0	2	2	2	2	0		1					2				3	2	2	2	2	2	2	2	2			3	3	3	3	2	2	1	2			0	0	0	0	0	2	3	1	3	2	3		3	3	2	1	3	1	1	3	3	2	3	3	3	3	3	0	0	0	3	0	0	0	0
GUECKÉDOU	KASSADOU																																																																							
GUECKÉDOU	KOUNDOU	0	0	0	0	0	1	0	0	0	1	0	0	2	2	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	1	0	0	2	2	0	0	3	3	3	0	2	2	2	0	1	1	0	1	1	0	0
GUECKÉDOU	NONGOA											2		2			2	2					2															2						2			2		2		2	2			2	2	2	2	2	2				1	1				1				
GUECKÉDOU	OUENDÉ KENEMA	0	0	0	0	0	0	1	0	0	0	1	1							2	1	2	1	2	0	2	0	0	2	3	0	0	1	0	0	0	0	0	1	1	0	2	2	2	0	0		0	0	1	0	0	2	2	0	2	2	1	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0
GUECKÉDOU	TÉKOULO	1	0	2	1	3		0	3	0	2	1	1	2	1	0	1	0	0	0	1	2	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1		2	2	1	1	3	1	3	1		3	3	1	0	1	3	0	1		0	0	0	0	1
GUECKÉDOU	TEMESSADOU	2	2	0	1	1	1	2	1	1	2	0	0		2		1	2	1		2	1	1	1	1	0	0	1		2	2	2	0	0		0	0	1	0	1	0	0	0	1	2	1	1	2	0	1	1	2	1	2	1	0	2	2	2		1	0	1	2	2	0	2	2	1	0	0	0	0
KISSIDOUGOU	ALBADARIA																																																																							
KISSIDOUGOU	BANAMA																																																																							
KISSIDOUGOU	BARDOU																																																																							
KISSIDOUGOU	BEINDOU																																																																							

KISSIDOUGOU	FERMESSADOU																																																																								
KISSIDOUGOU	FIRIAWA																																																																								
KISSIDOUGOU	GBANDADOU																																																																								
KISSIDOUGOU	KISSIDOUGOU CENTRE																																																																									
KISSIDOUGOU	KONDIADOU																																																																								
KISSIDOUGOU	MANFRAN																																																																								
KISSIDOUGOU	SANGARDOU																																																																								
KISSIDOUGOU	YENDÉ MILLIMOU																																																																								
KISSIDOUGOU	YOMBIRO																																																																								
LOLA	BOSSOU	2	0	1	1	0	1	0	1	0	1	0	0	2	2		3			1			2	1		2	3	2		1		3							1	1	1	1	0	0		0	0	1	2			3						2		3	3		2		2	2	2	2	1		1	1	0
LOLA	FOUMBADOU	1	2	3	1	1	1	0		2	2	1	2	3	0	1	2	1	1	2	1	1	2	2	1	1	1	2	1	2	3	1	3	2	0	1	0	0	1	0	1	0	0	2	1	1	0	0	2	1	2		2	1	2	2	1	1	2	2	3	3	1	2	3	1	2	2	0	0	1	0	
LOLA	GAMA						2								3			3			3								1	2													3	2			3		1									2			3		3		3								
LOLA	GUEASSO																																																																							
LOLA	KOKOTA	0	0	1	0	0	0	0	0	0	1	0	0	1	2	1	2	0	0	1	2	2	1	2	1	1	0	0	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	1	2	0	2	0	0	0	1	0	1	5	3	3	1	1	1	2	0	0	0	1	0	0	0	0
LOLA	LAINE	0	0	0	0	0	1	1	1	0	2	2	2	3	3	1	3	1	1	1	2	4	2	3	1	3	1	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	1	0	2	1	1	1	2	1	2	3	0	3	2	3	3	1	3	3	1	1	1	0	1	0	0	0	0	0	1	0	0
LOLA	LOLA CENTRE	0	0	1	2	1	2	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2	3	3	3	3	0	2	3	3	1	0	0	0	0	0	0	0
LOLA	N'ZOO	2	0	1	0	0	2		1	1	1	1	1	1	3	0	0	3	2	2	3	2	2	3	2	3	3	1	2	2	2	1	1	0		0	1	1	1	1		0	0	3	2		1	2	2	2	2	0	0	3	0	3	2	2	3	3	3	2	1	2	2	1	0	0	1		0	0	0
LOLA	TOUNKARATA	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	2	3	0	0	0	0	1	0	0	0	0	0	0	0	0
MACENTA	BALIZIA																																																																									
MACENTA	BINIKALA																																																																								
MACENTA	BOFOSSOU																																																																								
MACENTA	DARO																																																																								
MACENTA	FASANKONY																																																																								
MACENTA	KOUANKAN																																																																								
MACENTA	KOYAMAH																																																																								
MACENTA	MACENTA CENTRE																																																																								
MACENTA	N'ZÉBÉLA																																																																								
MACENTA	OREMAI																																																																								
MACENTA	PANZIAZOU																																																																								
MACENTA	SENGBEDOU																																																																								
MACENTA	SEREDOU																																																																								
MACENTA	VASSEREDOU																																																																								
MACENTA	WATANKA																																																																								
NZEREKORE	BOUNOUMOU	1	1	2	2	2	2	1	2	2	1	0	0	3	3	0	2	0	0	3	1	3	1	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	3	3	3	3	3	3	2	3	3	3	3	3	3	3	1	3	3	1	0	1	1	3	1	1	1	1	0	0	0	+
NZEREKORE	GOUECKE	0	0	0	0	0	0	0	0	0	0	0	0	0	2										1				2		0	0	0	0	0	0	0	0	0	0	0	0	1							0					2	0	2	1	3	3			1	0	2	0	0	0	0	0	0	0	0
NZEREKORE	KOBELA	1	0	0	1	0	0	0	0	3	1	1	0	3	3	0	3	3	0	0	0	3	1	1	0	1	0	0	1	1	3	3	0	0	0	0	0	0	0	0	0	3	3	0	1	0	0	1	1	3	3	0	3	3	1	1	3	0	3	3	3	3	0	0	1	0	0	0	0	0	0	0	0
NZEREKORE	KOROPARA	0		2	1	1		1	1	1	0	1	1	0	2	0	0	2	1	1	1	1	2	2	2	2	2	3		3	3	2	1		1	0	0	0	0	1	2	2	0	3	3	0	2		0	1	1	1	0	0	2		3	3	3	3	3		3	3	3	3	1	1	1	0	1	2	0
NZEREKORE	KOULÉ	0	0	0	0	1	0	1	1	1	0	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0		0	1	2	2	2	1	1	0	2	0	0	0	0	0	0	0
NZEREKORE	N'ZÉRÉKORÉ CENTRE																																																																									
NZEREKORE	PALÉ	0	0	0	0	1	1	0	1	0	0	0	0	1	2	2	2	2	2	2	2	2	1	3	1	2	1	0	1	1	0	0	0	1	1	0	1	2	0	1	0	1	1	2	2	2	3	3	3	2	2	3	0	1	2	2	1	2	3	3	3	0	3	3	3	1	1	1	0	0	0	0	0
NZEREKORE	SAMOÉ	0	0	0	0	0	0	0	1	0	0	0	1	2	2	0	0	0	0	0	0	0	2	2	1	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	2	0	0	0	1	3	3	1	0	0	0	2	0	0	0	1	1		0	0	0
NZEREKORE	SOULOUTA		0	0	0	0	1	0	0	0	2	0	0	2	2	0	3	0	1	1	0	0	1	1	0	1	1	0	0	0	1	2	0	1	1	0	1	0	0	0	0	0	2	0	2	0	0	1	2	0	0	2	0	0	2	0	2	0	3	3	0	2	1	0	2	1	1	0	0	0	0	0	0
NZEREKORE	WOMEY	1	1	1	1	1	1	2	2	2	1	2	2	2	3	1	2	0	0	0	2	2	1	2	2	2	2	0	0	2	1	1	0	0	0	0	0	0	0	1	0	0	0	2	2	0	1	1	1	3	3	1	2	3	0	2	3	1	3	3	1	2	2	1	2	1	1	1	0	0	1	0	0
NZEREKORE	YALENZOU	0	0	1	0	0	1	1	1	0	0	0	0	1	2	0	2	0	0	0	0	0	2	2	2	2	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	2	0	2	0	0	0	3	3	2	0	0	1	2	0	0	0	0	0	0	0	0
YOMOU	BANIE	0	0	0	1	1	1	1	1	1	1	1	1	3	3	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	1	1	1	1	1	0	1	1	3	1	3	3	1	1	1	3	3	0	1	1	1	1	0	0	0
YOMOU	BEHTA	0	0	0	0	1	0	0	1	0	1	0	0	2	3	0	2	0	0	2	0	0	2	2	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	3	2	2	2	2	0	0	3	0	3	3	3	0	2	0	2	0	0	2	0	0	2	0	1
YOMOU	BIGNAMOU	2	0	0	0	1	1	1	1	1	1	1	1	1	3	0	1	0	0	0	0	0	2	2	2	2	2	0	1	1	1	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	1	2	1	0	1		0	0	2	0	3	1	2	3	3	3	2	0	3	2	1	1	0	0	0	0

YOMOU	BOWÉ	0	0	2	2					2						0	3	0	0	3	3	3	3	3		3		1		2	2	0			0	0	0		0	0	0		0	0		0		0	3			2			2	2		3	3	2	2	2	0	1	1	0			1	0	1		0
YOMOU	DIÉCKÉ	2	1	1	0		1	0	1	1	2	0	1	1	2	0	0	0	0	0	1	1	1	1		1			2	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	1	1	1	0	0	0	0	0	0	0	2	1	3	3	2	1	2	1	2	1	0	0	1	1	1	0	0
YOMOU	PELA	0	0	0	0	0	0	0	0	0	1	2	1	0	1	0		2	0	3	1	3	3	3	3	3	0	3	2	1	1	0	0	0	0	0	0		0	0	0	0	1	1	1	1	1	1	1	1	1	3	0	1	0	0	0	0	0	2	2	2	2	2	0	1	1	1	0	0	0	0	0
YOMOU	YOMOU CENTRE																																																																								
BOFFA	BOFFA CENTRE	2	3	2	1	1	1	1	0	2		1	0	0	0	0	3	2	0	0	2	2	1	1	3	3	3	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2	1	2	2	2	2	0	0	2	1	2	3	3	3	0	0	2	0	0	3	3	2	1	1	2	0	2
BOFFA	DOUPROU	2	2	2			1				3	2		1	1	2	2	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1		1			1	1	1	1	1			1					3	3	2	3	2	2	3	3	3					
BOFFA	KOBA	0	1	2	1	1	1	2	2		2		2			1		1	1	2	2	2	2	2	2	2	2	2		2	0	0	0	0	0	0	0	2	0	0	0	0		2		1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	0		0	0
BOFFA	KOLIA	2	2	2	1	1		0	1		3	3	0	0	0	3	3	1	1	2	2	2	1	2	1	3	3	0	1	1	3	0	2	0	3	0	0	0	0	0	0	0		2	3	1	2	3	3	3	3	3	1	2	3	2	2	3	3	3	1	1	3	2	2	3	3	1	2	0	2	0	2
BOFFA	LISSO	2	3	1	2	2	2	0	3	0	3	0	0	0	1	0	2	0	1	2	2	0	3	3	3	3	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	1	1	2	0	0	0	0	3	3	3	3	0	1	2	0	1	3	2	3	0	0	1	0	0
BOFFA	MANKOUNTAN																																																																								
BOFFA	TAMITA	2	3	2	1	1	1	1	0	2	3	1	0	0	0	0	3	2	0	0	2	2	1	1	3	3	3	0	0	1	2	0	0	0		0	0	0	0	0	0	0	0	0	2	0	2	1	2	2	2	2	0	0	2	1	2	3	3	3	1	0	2	1	1	3	3	2	1	1	2	0	2
BOFFA	TOUGNIFILY	2	3	1	2		2	2	3	0	3	0	0	0	1	0	1	0	1	2	2	0	3	3	3	3	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	1	1	2	0	0	0	0	3	3	3	3	0	1	2	0	1	3		2	3	1	1	0	0
BOKÉ	BINTIMODIA																																																																								
BOKÉ	BOKÉ CENTRE	1	1	1	1	0	0	0	0		2	0	0	0	0	0	1	0	0	1	1	0	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	2	2	0	0	2	0	1	1	1	0	0	0	2	0	2
BOKÉ	DABISS	3	3	2	0	1	1	0	2	0	2	1	1	2	3	1	2	0	0	2	1	3	1	2	1	1	0	0	0	1	2	1	0	0	0	0	2	0	1	1	1	0	0	2	1	1	2	1	3	1	2	2	0	0	2	1	2	2	3	3	0	0	2	1	1	3	3	1	1	0	2	1	0
BOKÉ	KAMSAR																																																																									
BOKÉ	KANFARANDÉ																																																																									
BOKÉ	KOLLABOUI																																																																									
BOKÉ	MALAPOUYA																																																																									
BOKÉ	SANGAREDI	2	3	3	0	0			2	0	3	0	0	0	2	0	2	0	0	0	1	0	2	2	0	1	2	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	3	2	0	3	0	0	3	1	3	2	2	0	2	0	2		2	2	3	1	2	2	2	0	0
BOKÉ	SANSALÉ	2	3	2	1	1	2	3	3	3	3	3	2	1	2	3	3	3	3	3	3	3	3	3	0	3	3	3	3	3	3	3	1	0	0	0	0	2	2	2	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3	2	2	2	2	2	0
BOKÉ	TANÉNÉ	2	2	2	0	0	1	0	1	0	2	1	1	1	2	0	2	0	0	1	1	1	1	1	0	1	0	0	0	1	1	0	0	0	0	0	1	0	1	1	1	0	0	2	1	1	2	1	1	1	0	2	0		1	1	2	2	2	3	0	1	2	0	1	2	2	1	1	0	2	0	0
COYA	COYA CENTRE																																																																									
COYA	KOURIA																																																																									
COYA	MANEAH																																																																									
COYA	WONKIFONG																																																																									
DUBREKA	BADY	1	0	1	1	2	2	1	0	1	2	1	1	0	0	0	2	0	0	0	1	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		0	0	2	1	0	1	0	2	0	0	2	0	0	0	0	2	0	0
DUBREKA	DUBREKA CENTRE																																																																										
DUBREKA	FALESSADE																																																																									
DUBREKA	KRORIRA																																																																									
DUBREKA	OUASSOU	2	3	3	3	3	3	3	3	3	3	3	3	0		0	3	3	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	2	2	2	3	3	3	3	3	3	3	2	2	3	3	0	3	2	3	2	2	3	3	3	3	2	2	0	0
DUBREKA	TANENÉ	1	3	3	2	1	1	0			3	2	2	1	3	1	0	0	0	0	1	0	0	0	1	0	1	0		2	1	1	0	0	0	0		2	0	0	0	0	1	3	3	0	1	0	0	0	0	3	0	3	2	2	0	2	0	2	3	0	2	0	0	3	0	2	0	1	2	0	3
DUBREKA	TONDON	1	2			2				2		2				2		2	2									1	1	1									0	0	0	0	1	2	2		2	2	2								2	2	2	2	2	2	2		2	2		2					
FORECARIAH	ALASSOYAH	2	3	3	1	1	1	0	0	0	0	1	1	0	1	1	3	0	0	1	1	1	2	1	1	2	2	1	0	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	3	1	1	3	3	3	3	3	3	3	0	3	1	1	1	3	1	0	0	0	0	1
FORECARIAH	BENTY	1	0	1	1	1	1	1	2	0	2	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	2	0	0	0	2	2	2	3	3	2	3	2	1	1	2	2	2	0	1	0	0	2
FORECARIAH	FARMORIAH	2		2	2	3	3	3			1			3	3	2	3				2			3		2		2		3	3								0	0	0	0		3					3			3			3	3	3	3	3	3	3		0	3	3	3	3				2	0	2
FORECARIAH	FORECARIAH CENTRE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FORECARIAH	KABACK	0	0	2	0	0	1	0	2	0	2	1		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
FORECARIAH	KAKOSSA	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			1	0	0	2	0	0	2	1	1	0	0	0	0		2	0	0	0	0	0	0	0
FORECARIAH	KALIAH	2	1	0	0	0	0	0	0	0	3	2	0	0	2	0	2	0	0	2	1	0	1	0	0	2	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	1	2	3	3	0	0	1	1	1	2	2	1	0	0	0	0	1
FORECARIAH	MAFERINYAH	1	0	0	2	1	2	0	3	0	3	3	3	0		0	3	0	0	3	1	0	3	1	3	3	3	0	0	2	1	1	0	0	0	0	0	2	0	0	0	0	0	2	2	2	2	2	3	0	0	3	0	0	3	2	3	3		3	1	2	2	2	3	3	2	2	0	0	0		3
FORECARIAH	MOUSSAYAH	2	2	2	3	3	3	1	1	0	3	3	1	1	1	0	3	0	0	2	3	0	2	2	2	2	3	0	0	2	2	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	2	2	3	0	0	3	2	3	3	3	3	3	2	3	2	2	3	3	1	1	1	1	0	0
FORECARIAH	SIKHOUROU	2	3	3	2	3	3	0	1	0	3	3	2	1	2	0	3	0	0	2	2	0	3	2	1	1	3	0	0	2	2		0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	2	2	2	3	0	0	3	2	3	3	3	3	3	2	3	2	3	3	3	1	1	1	1	0	0
FRIA	BAGUINET	2	3	3			2	2	2		3										2										2																2		2			2			3		3	3	2								3	3	1		2		
FRIA	BANGUIGNY	2	2	3	3	3	3	3	3	3	3	3	3	2	2	0	2	2	1	1	1	1	1	2	2	1	1	2	1	1	0	0	0	0	0	0	0		0	1	0	0	0	1	3	2	0	0	1	2	2	2	0	0	0	1	2	2	3	3	2	2	2	1	0	2	2	2	1	0	0	0	0
FRIA	FRIA CENTRE	2	2	2	1	1	1	2	2	1	2	0	1	0	0	0	0	0	0	0	2	2	2	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	2	0	0	0	1	1	1	0	0	0	0
FRIA	TORMELIN	2	3	3	3	2	2	2	2	2	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	2	1	2	0	1	1	1	1	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	1	1	2	3	3	1	1	2	1	1	2	2	2	1	1	1	0	0

KINDIA	BANGOUYA	2	3	3	3		3	3	3	3	1	2	2	2	2	2	2	0	2	2	2	2	2	1	1	1	1	0	3	0	0	0	0	0	0	0	1	0	2	0	0	1	2	3	2	2	3	1	1	3	1	1	0	1	2	3	3	3	3	3	2	2	2	2	3	2	3	2	1	1	0	0
KINDIA	DANNAKANYA			2																	1																							1													3	3		3		3						1				
KINDIA	FRIGUIABLÉ	1	2	2	2	2	2	0	0	2	0	0	0	0	0	1	0	1	0	0	0	1	1	1	1	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1		0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0
KINDIA	KINDIA CENTRE																																																																							
KINDIA	KOLLENTÉ	2	3	3	2	2					1	1	0	0	0	0	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	1	1	3	2	2		0	0	0	1
KINDIA	MADINA OULA	2	3	3	2	1	1	1	1	1	1	1	1	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	1	0	0	0	3	1	0	1	1	2	0	0	0	0	0	0	1	3	3	0	3	3	3	2		1	3	1	1	2	0	0	0	0
KINDIA	MANBIA	1	2	3	3	1	2	2	2	1	1	1	1	1	1	0	2	0	0	0	2	0	2	0	0	2	2	1	0	2	0	0	0	0	0	0		0	1	1	1	0	0	0	0	2	2	0	0	0		1	0	0	2	2	2	3	3	2	0	3	0	0	1	1	3	1	1	1	0	0
KINDIA	MOLATA	2	0	3	0	0	2	0	2		2	0	2	0	1	2		2		1	1	1	1	1	1	1	0	2	0	2	1	0	0	0	0	1	0	0	1	0	0	0	1	1		1		0		0	0	0	0		0	0	3	0	0	3	0	3	0	0	2	0	0	0	0	0	1	0
KINDIA	SANAYA	2	3	2	2	0	1	2	2	2	2	2	2	0	2		2	0	0	0	2	2	2	2	2	2	2	3	3	1	1	0	0	0	0	0	0		1	0	0	0	2	3		2	2	2	2	2	2	2	3	2	3	3	3	3	2	3	2	2	2	2	3	2	2	0	0	0	0	0
KINDIA	SOUGUETA	0	1	0	0		2													2	2	2	1			2	1	1	2	2	2		0	0	0			1	2													2				2	2	2	2			2	2	2		2	2					
TELIMÉLÉ	BOUROUWAL	2	3	3	3	2	2	3	0					2		2		2		1	2								2	2	0	0		0				0	0	0	0	2	2			2					3						2		3	2	3	3	2	2	2	2		2	2	0	0	0
TELIMÉLÉ	DARAMAGNAKI	3	3	2	2	3	2	3	2	2	2	1	2	1	1	0	0	0	0	0	2	1	0	1	1	1	1	1	0	0	1	1	0	0	0	0	1	0	1	0	0	1	1	2	1	1	1	0	1	1	3	3	1	3	3	3	3	3	3	0	3	2	1	1	2	3	3	1	0	0	0	0
TELIMÉLÉ	GOUGOUDIÉ	1	2	2	1	1	1	1	0	0	1	1	1	0	1	0	1	0	0	1	0	0	1	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	1	1	0	1	1	0	1		2	2	2	1	2	0	2		0	2	0	1	0	0	1	0	0
TELIMÉLÉ	KOBA	3	3	3	3	3	3	3	3	3	1	3	3	3	3	2	1	2	1	1	1	1	3	3	3	3	3	1	3	3	2	2	0	0	0	2	1	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	2	3	2	1	2
TELIMÉLÉ	KOLLET	2	2	2																																																																				
TELIMÉLÉ	KONSOTAMI																																																																							
TELIMÉLÉ	MISSIRA	3	3	2	3	3	2	2	2	1	1	1	2	1	2	1	2	1	1	2	2	1	1	2	2	2	2	1	2	2	2	0	2	1	0	2	2	0	1	0	0	1	2	2	2	2	2	2	2	2	2	2	1	1	2	2	3	2	1	2	2	2	1	1	2	2	2	1	1	1	0	0
TELIMÉLÉ	SANTOU	3	3	3	3	0	0	0	0	0	1	0	0	3	3	0	2	0	2	0	0	3	2	2	1	1	1	0	1	2	2	2	0	0	0	0	0	0	1	0	0	0	3	1	0	0	1	3	3	0	3	0	3	3	3	3	1	3	3	1	0	3	3	3	3	3	1	0	1	1	0	0
TELIMÉLÉ	SAREKALY																																																																							
TELIMÉLÉ	SINTA																																																																							
TELIMÉLÉ	SOGOLON																																																																							
TELIMÉLÉ	TARIHOYÉ	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	3	1		2	2	2	2	2	2	2	1	2	2	3	3	3	2	1	2	1	1	0	2	0	0		3	2	2	2	2	2	3	3	2	2	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	0	0	0	0
TELIMÉLÉ	TÉLEMÉLÉ CENTRE	2		3				2													2			2								2						1													2			2			2	2		2		2			2	2					
TELIMÉLÉ	TYONTYAN																																																																							
DABOLA	ARFAMOUSSAYA	1	3	2	2						3				2									1																		1	1		2		2	3				3			3			3			2		3			3	1		3							
DABOLA	BANKO	3	3	3			2				3		3		3	2					2						2		3		2	2		1	3		3	1	2	1		2	3	2		2		3		2	2		2		2	3	3	3	3	2		3		2	3		3	2	2	2		
DABOLA	BISSIKIRIMA	2	3	3	0	0	0	0	0	0	3	0	0	0	1		1	1	2	1	0	0	2	2	2	2	2	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	1	2	0	0	0	3	3	3	3	0	0		2	1	3	3	3	1	3	3	0	0	3		0	0	0	1	0	0
DABOLA	DABOLA CENTRE	2	3	1	2	1	1	1	1	1	1	0	0	0	3	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0	0	1	0	1	0	0	1	1	2	2	0	2	2	0	0	2	0	0	0	0	0	0	0
DABOLA	DOGOMET	2	3	3	3	1	1	1	1	0	0	0	1	1	2	2	1	2	1	2	2	2	1	1	1	1	3	2	2	1	2	2	2	2	1	2	1	1	1	3	1	1	1	2	1	2	1	3	1	1	2	1	1	3	2	1	2	3	1	1	1	3	0	1	3	3	3	0	1	1	1	1
DABOLA	KANKAMA	3	3	3	2	2	3	2	2	2	3	2	2	1	1	2	2	2	2	2	1	3	1	3	3	3	3	2	2	3	2	2	2	2	2	2	2	2	3	3	3	0	2	2	2	2	2	2	2	2	2	1	1	2	1	3	3	3	3	3	1	3	1	3	3	3	3	0	0	0	0	0
DABOLA	KINDOYE	2	3	2	3	0	1		1	0	2	0	0	0	0	1	3	0	0	0	0	0	1	0	0	0	1	0	0	1	1	2	0	0	0	0	0	1	1	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	3	1	3	0	0	3	1	0	3	0	2	3	0	1	0	0
DABOLA	KONINDOU	2	3	3	2	2	2	2	2	2	2	2	2	2	2	3	2	3		2	3	2	3	2	2	3	2	2	3	2	3	3	3	1	0	0	0	0	0	0	0	3	1	1	2	2	2	0	0	0	0	0	0	3			3	0	3	3		3	2	2	3	1	2	0	0	0	0	0
DABOLA	N'DÉMA	2	3								3						3				1										2	2		1					1				1							2	2				1	1	3	1	2		2			3				1	1		0	0
DINGUIRAYE	BANORA	1	3	2	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	1	0		0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	2	0	0	2	0	0	3	0	0	0	0	2	0	0
DINGUIRAYE	DIALAKORO	2	3	3	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0
DINGUIRAYE	DIATIFERE	2	3	3	3	0	0	0	0	0	3	0	0	0	1	0	2	0	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	2	2	1	0	1	1	2	0	2	2	3	3	3	3	0	1	1	1	0	2	1	2	0	1	0	1	0	3	1	0	2	0	2	0	0
DINGUIRAYE	DINGUIRAYE CENTRE	3	3	3	3	3	3	3	3	3	3	3	3	0	0	2	2	2	2	2	2	2	2	2	2		1	0	2		1	1	2	2	2	2	2	2	2	2	2	0	2	2	0	0	0	0	0	0	2	0	0	0	0	0	2	2	2	2	0	2	0	0	3	3	0	0	0	3	1	3
DINGUIRAYE	GAGNAKALY	2	3	3	2	2	2	1	1	1	2				2	2		1		0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	2	2	0	0	0	3	3	0	0	2	0	0													0	0	0	3	2	1	0	3	3	0	0
DINGUIRAYE	KALINKO	3	3	3	3	3	3	0	3	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	2	2	1	1	2	2	2		0	3	0	0		0	0	2	0	1	1	2	3	2	2	0	3	0	0	3	1	2	0	1	1	0	0
DINGUIRAYE	LANSANAYA	2	3	3	3	1	1	1	2	2	3	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	2	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3	2	2	3		3	3	2	2	3	1	1	0	0
DINGUIRAYE	SELOUMA	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0
FARANAH	BANIAN																																																																							
FARANAH	BEINDOU	3	3	3	2						3					2	2	1	2	3	2			2			3	3		2	3		0	0	2		2	2	2	1	1	2						3			3			3		2	2		3			3	2	2	3			2		3	0	
FARANAH	FARANAH CENTRE	2	3	3	3		3				3						3				3		3			3								3				2	2	2	0	0	1				2		3			3		2	2			3			3		3	3	3	3	2	2	3		2	1	1
FARANAH	HERIMAKONO																																																																							
FARANAH	KOBIKORO	3	3	3	3	1	1	0	0	0	3	0	0	0	1	1	3	0	0	1	2	2	0	3	3	0	3		0	0	3	0	0	0	1	0	0	0	0	0	0	0						3	0	0	0	0	0	0	0	3	3	2	3	3	1	3	2	2	3	3	0	2	1	0	0	0
FARANAH	MARELA																																																																							

FARANAH	NIALIA																																																																						
FARANAH	PASSAYA																																						0	0		1	1	1	2	1	0		2	2	2	2	2	2	2	2	3	3	3	3	3	2	2	3	2	2	2	0	1	0	0		
FARANAH	SANDENIA	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			→		↗																																						
FARANAH	SONGOYAH	0	3	3	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0		0	2	2	3	0	1	0	3	0	0	3	0	0	0	0	0	0	0
FARANAH	TIRO																																																																							
KANKAN	BALANDOU	0	8	2	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	1		1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0		0	0	0	0	1	0	0	1	1	2	1	2	1	0	1	0	0	1	3	1	3	2	3	0	0	3	3	2	1	0	0	0	1
KANKAN	BATÉNAPADJI		.	3							3																														.		.	.	.	.	.	.	.	.		.		.			/	2	3	2			3			3					2		
KANKAN	BEREDOU-BARANAMA	0	0	3	2	0	0	0	0	1	0	0	0	0	3	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	1		2	2	0	3	0	0	3	0	0	0	0	0	0	0
KANKAN	BOULA	1	3	2		1	2		2		2				2	2		2	2		2	2	3	3	3	2	3	3	2	2	2	2	3	2	3				1	1	2			1			1	1	2	2	2			2	2			3	3	3	3	3	3	2	3	3	2	3			2	0	0
KANKAN	KANKAN CENTRE	2	3	3	0	0	1	0	0	0	1	0	0	0	3	2	3	1	1	0	2	0	1	0	0	0	0	0	3	2	1	0	0	0	1	0	3	3	1	1	0	1	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0	3	3	3	1	0	3	1	0	3	3	3	1	0	1	0	1
KANKAN	KARIFANORIYA																																																																							
KANKAN	KOUMBAN	2	2	3	1	1	0	0	1	0	0	0	1	0	0	2	2	1	1	0	3	0	1	0	0	0	0	1	1	3	1	0	0	0	1	0	0	0	0	2	0	1	1	3	1	0	1	0	1	0	0	2	0	1	1	0	0	3	0	3	2	0	3	1	2	3	0	2	2	0	2	0	0
KANKAN	MAMOUROUDOU	0	2	1	3	2	1	1	2	1	1	1	.		3	1	3	3			0	0	1	1	0		0			.	1	1	0	0	0	2	0	0	0	1	0	0		0		.	.	.	1			1			1		0	2	2	3	0		2	0	0	3	1	0	1	1	1	0	0
KANKAN	MISSAMAMA	0	1		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0		0	0	0	1	1	0	0	1	2	0	1	2	0	0	0	0	0	1	0	0	0	0	2	1	2	1	1	3	1	3	0	0	0	0	0	0	0
KANKAN	MORIBAYA	2	3	3			3		1		0			.		3	2	2	3		2		1	3		2	2		3		1	1	2	0	1	2	0	2	1	1	0			1	2	1	1	.	.								.	3		3	3	2	3		2	3	1	2	2	2	2	0	0
KANKAN	SABADOU-BARANAMA	2	3	3	3	3	3		2	1		.		.		3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	2	0	0	3	3	2	2	2	2	2	0	0	0	1	2		1	1	3	3	3	1		0	1	1	3	3	3	3	3	3	3	0	0	3	3	3	1	0	3	0	0
KANKAN	TINTIOULEN	0	2	2			.				2	.		0	1	2	2	0		2	1	0	2	0	0	1	0	0	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1	0	2	2	2	2	1	0	0	0	2	2	2	2	2	1	2	2	2	2	0	0	2	0	1	0	0
KANKAN	TOKOUMOU	1	2	2		1	2		2		3						2		.	.	1					3	3		.		1	.	.	.	2				1	1									3			2				.	2	2	3	3			3		1		2		2				
KEROUANE	BANANKORO	0	2	2	1	0	1	0	0	0	0	0	0	0	0	2	3	0	0	1	2	0	3	3	0	0	1	0	1	0		1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	3	2	3	2	0	2	1	2	1	0	0	0	0	0	0	0
KEROUANE	DAMARO	2	2	2																									1	1	2									1				2	3												2						.	2	3				2			
KEROUANE	KÉROUANÉ CENTRE		3	3	2		3	1	1	1	1	1	1	1	1	3	2	1		1	1	1	1			3		0	2	0	1	1	0	0	1		0	2	0	1	0	0	0	0	2	2	2	2	1	0	0	1	0	0	2	2	2	2	3	3	1	0	3	1	1	3	3	0	1	1	2	0	0
KEROUANE	KOMODOU	0	3	3	2	0	0	0	0	0	3	0	0	1	3	1	2	1	0	1	1	1	1	1	1	1	2		2	1	1	1	0	1	1	1	0	1	0	1	0	0	0	0	1	0	0	1	2	1	1	1	0	1	3	1	2	1	2	3	0	1	1	1		3	2	1	1	3	3	0	0
KEROUANE	KONSANKORO	2	3	3	2	1	1	0	0	2	3	0	3	0	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	1	0	0	0	0	0	0	1	0	1	1	1	1	0	0	0	0	2	1	2	2	3	3	2	0	2	1	1	3	3	3	1	2	2	0	0
KEROUANE	LINKO	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	2	0	0	0	0	0	0	1	0	0	0	1	2	2	1	1	1	1	1	0	0	0	0	0	2	2	2	2	2	0	2	1	1	3	2	2	0	0	2	0	0
KEROUANE	SIBIRIBARO	1	1	2	2	3	2	2	1	1	2	3	3	1	2	0	1	0	0	1	2	0	2	1	1	2	1	2	2	0	2	1	1	1	0	0	0	2	0	1	0	0	1	1	1	1	2	2	2	1	1	2	1	1	2	0	2	2	2	3	2	3	2	1	2	2	1	1	2	0	0	0	0
KEROUANE	SOROMAYA	1	2	3	1	1	2	1	1	0	0	1	1	1	2	0	3	1	1	1	2	1	1	1	1	2	0	1	2	0	1	0	0	1	1	0	0	1	0	1	0	0	0	1	2	2	1	1	3	1	2	2	0	1	1	2	2	2	2	3	2	3	3	1	2	3	2	2	2	1	1	0	0
KOUROUSSA	BABILA																																																																							
KOUROUSSA	BALATO																																																																							
KOUROUSSA	BANFELÉ																																																																							
KOUROUSSA	BARO																																																																							
KOUROUSSA	CISSELA	2	3	3	2	0	2	0	0	0	3	0	0	0	3	0	2		0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0	0	0	3	0	1	3	0	0	0	0	0	0	0
KOUROUSSA	DOUAKO	1	3	3	3	1	2				0		.		2	2		3	2	1	3	2	3	3	2	2			.	2	2	1		.	2	2			0	0	1	1		2	2				2	2	3	1			1		3	2	3				.	.	1	3		2	2	1	2	0	
KOUROUSSA	DOURA																																																																							
KOUROUSSA	KINIÉRO																																																																							
KOUROUSSA	KOMOLA KOURA																																																																							
KOUROUSSA	KOUMANA																																																																							
KOUROUSSA	KOUROUSSA CENTRE	1	1	3	0		0		.		0		.	.	1	1	2	0	0	0	2	0	0	2	2	2	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	1	0	2	3	3	3	0	3	1		3	0	0	2	2		0	0
KOUROUSSA	SANGUIANA																																																																							
MANDIANA	BALANDOUGOUBA	0	0	2	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	2	0	0	1	2	2	2	0	2	0	0	3	0	0	0	0	1	0	0
MANDIANA	DIALAKORO		2	3	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	1		0	0	0	1	0	0	3	0	1	0	0	1	0	0	1	0	0	2	2	1	0	0	0	3	2	2	0	1	1	1	0	0	0	0	0	1	3	2	3	3	3	2	2	3	3		0	0	0	3	0	3
MANDIANA	FARALAKO																																																																							
MANDIANA	KANTOUMANIA	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2		0	0	0		2	0	0	1	1	1		0		0	0	0	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	1		1	0	0	3	0	0	0	0	1	0	0
MANDIANA	KINIÉRAN	0	0	1	1	0	0	0	0	0	0	1	0	0	2	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	2	0	0	0	0	2	2	2	3	3	3	3	3	0	0	3	0	2	0	0	0	0	0
MANDIANA	KONDIANAKORO	0	2	2	0	0	0	0	0	0	2	0	0	0	2	2	2	0	2	2	0	2	2	2	2	2	2	2	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2	2	0	2	0	2	2	2	0	0	0	2	0	0	2	2	2	2	0	2	2	0	3	0	0	0	0	2	0	0
MANDIANA	KOUNDIAN	0	0	2	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	2	0	0	1	2	2	2	0	2	0	0	3	0	0	0	0	1	0	0
MANDIANA	MANDIANA CENTRE	0	2	3	3	3	0	0	0	0	0	0	0	0	3	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	2	0	0	1	0	0	3	0	0	2	3	3	3	0	3	0	0	3	0	0	0	1	2	0	0
MANDIANA	MORODOU	0	0	3	0	0	0	0	0	0	2	1	0	0	0	0	0	1	2	2		0	0	0	0	0	0	1	2		1	2	0	0	0	0	0	0	0	2	1	1		0	1		0	0	0	0	0	0	0	0	0	0		2	0	0	3	0	3	3	3	3	0	0	0	3	3	1	0

MANDIANA	NIANTANIA	0	2		2	2	0	0	0	0	2	0	0	0	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	0	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	3	3	2	3	2	2	3	0	0	0	0	0	0	0
MANDIANA	SALADOU	0	1	1	2	2	2	3	3	3	0	3	2	0	0	1	1	2	2	1	1	1	1	2	1	2	1	0	2	2	1	1	1	2	1	1	0	2	0	1	0	0	0	2	2	1	1	1	2	1	1	2	1	1	1	2	2	2	3	3	2	2	3	0	0	3	1	1	0	0	0	0	0
MANDIANA	SANSANDO																																																																								
SIGUIRI	BAKON																																																																								
SIGUIRI	DOKO																																																																								
SIGUIRI	FRANWALIA																																																																								
SIGUIRI	KINIÉBAKOURA	2	2	3	3	0	2	0	3	1	2	0	1	1	3	2	2	3	1	1	1	1	1	1	1	1	2	1	1	2	2	2	1	3	3	1	1	2	2	1	2	2	2	1	2	2	2	2	3	1	3	3	0	1	1	2	3	2	3	3	3	3	3	2	2	3	0	3	2	3	3	0	2
SIGUIRI	KINTINIAN	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	0	3	0	0	3	0	0	2	1	0
SIGUIRI	MALÉAH			3																																			1		0	0																									3					1	3	3
SIGUIRI	NABOUN	2	2	2	0	3	0	0	3	3	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	3	0	3	3	0	3	1	1	3	3	3	0	0	0	0	0
SIGUIRI	NIAGASSOLA	1	0	3	0	1	0	1	0	0	0	0	0	0	0	1	3	0	1		1	0	1	3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	1	0	0	0	1	1	0	0	0	0	[illegible]	1	1	1	1	3	1	0	0	0	0	3	0	0	1	0	0	0	1
SIGUIRI	NIANDANKORO																																																																								
SIGUIRI	NORASSOBA																																																																								
SIGUIRI	NOUNKOUNKAN																																																																							
SIGUIRI	SIGUIRI CENTRE	1	1	2	0	0	0	0	0	0	3	1	1	0		0	2	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0		0	0	0	0	0	0	0	0	0	0	2	3	2	2	3	3	0	0	3	0	0	2	0	1	0	2
SIGUIRI	SIGUIRINI	2	3	3	0	0	3	3	0	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	1	2	2	0	0	2	1	0	0	0	0	1	1	2	2	2	2	1	0	2	2	2	2	2	2	3	1	0	3	0	0	1		0	0	0

CONAKRY KALOUM
DIXINN
KATOMA
MATAM
MATOTO

APPENDIX XIV. AREAS IN GUINEA LEAST HUNTED

Areas where hunting pressure is lowest within each Sous-Préfecture		
PRÉFECTURE	SOUS-PRÉFECTURE	ZONE
BOFFA	Commune Urbaine	Sakama
BOFFA	Coliah	Colia centre
BOFFA	Douprou	Youmaléah
BOFFA	Douprou	Linkin
BOFFA	Douprou	Bandégnindé
BOFFA	Lisso	N'Dantari
BOFFA	Lisso	Falaba
BOFFA	Lisso	Détékoundoukoun
BOFFA	Lisso	Lisso Centre
BOFFA	Tamita	Donya
BOFFA	Tamita	Wassira
BOFFA	Tamita	Marwondé
BOFFA	Tougnifily	Khissily
BOKE	Commune Urbaine	Baralandé
BOKE	Commune Urbaine	Korérah
BOKE	Commune Urbaine	Wabriya
BOKE	Sansalé	Sud de Sansalé Centre (Bakilonto)
BOKE	Sansalé	l'Ouest de Sansalé (Tanènè
BOKE	Sansalé	Dar Salam
BOKE	Sangarédi	Kourawel
BOKE	Sangarédi	Balandoudou
BOKE	Dabiss	Dabiss Centre
BOKE	Dabiss	Kouda
BOKE	Dabiss	Koufou-nadjé
DINGUIRAYE	Banora	A l'ouest
DINGUIRAYE	Diatifèrè	Zones Nord—est et Nord-Ouest
DINGUIRAYE	Lansanaya	Au Centre de la Sous-Préfecture
DINGUIRAYE	Lansanaya	Dayèbhé
DINGUIRAYE	Lansanaya	Wouyabhé
DINGUIRAYE	Lansanaya	Santiguiya
DINGUIRAYE	Dialakoro	Au Centre de la Sous-Préfecture
DINGUIRAYE	Kalinko	Aone de Baïlo à l'est de la sous-préfecture
DUBREKA	Khorira	Sur la montagne de Kabitaye
DUBREKA	Khorira	Montagne de Dombaya
DUBREKA	Bady	District de Missidé
DUBREKA	Commune Urbaine	Kènèndé
DUBREKA	Commune Urbaine	Yorokogueya
DUBREKA	Commune Urbaine	Béréiré
DUBREKA	Commune Urbaine	Zone Urbaine
FARANAH	Kolakoro	Fragbéa
FARANAH	Kolakoro	Komandou
FARANAH	Kolakoro	Kobikoro Centre
FARANAH	Sandénia	Sandénia Centre
FARANAH	Sandénia	Layah Centre
FORÉCARIAH	Allassoyah	Centre Urbain
FORÉCARIAH	Benty	Kaléiré
FORÉCARIAH	Benty	Bouramaya
FORÉCARIAH	Kaback	Karangbany district de Tonguiron
FORÉCARIAH	Kakossa	Taouyah
FORÉCARIAH	Kaléah	Kaléah Centre
FORÉCARIAH	Mafèrinyah	Fandié
FORÉCARIAH	Mafèrinyah	Senguelen
FORÉCARIAH	Moussaya	Dianéya
FORÉCARIAH	Moussaya	Layah
FORÉCARIAH	Moussaya	Koffio
FORÉCARIAH	Moussaya	Ganyah
FORÉCARIAH	Farmoriah	Wanifily (Forêt de Saraboly)
FORÉCARIAH	Farmoriah	Sikhourou Centre
FORÉCARIAH	Sikhourou	Dollonyah

FORÉCARIAH	Sikhourou	Balantou
FRIA	Baguinet	Sud
FRIA	Tormelin	Tormélin Centre
FRIA	Tormelin	Tanènè
FRIA	Tormelin	Wouloun Koby
FRIA	Tormelin	Mambory Foréya
FRIA	Commune Urbaine	Centre Urbaine
GAOUAL	Kounsitel	Districts de Kousitel
GAOUAL	Kounsitel	District Bantala
GAOUAL	Commune Urbaine	Montagnes Malanta
GAOUAL	Kakony	Wara
GAOUAL	Kakony	Boullérè
GAOUAL	Kakony	Madina
GAOUAL	Koumbia	Bhouly
GAOUAL	Koumbia	Pety
GAOUAL	Koumbia	Nètèrè
GAOUAL	Koumbia	Madina Bowé
GAOUAL	Koumbia	Kembera
GAOUAL	Weindou Borou	District du Central de Weindou Borou
GAOUAL	Malanta	Malanta Centre
GAOUAL	Touba	Touba Centre
GAOUAL	Touba	Soualou
KINDIA	Sougueta	Zone sud-est
KINDIA	Sougueta	Centre Urbain
KINDIA	Sougueta	Falloulaye
KINDIA	Sougueta	Fotongbè
KINDIA	Madina Oula	Zone de Madina I et II
KINDIA	Kolenté	Zone de Soloma (Siguiton)
KINDIA	Kolenté	Centre Urbain
KINDIA	Samaya	District de Camoya
KINDIA	Samaya	Sangarédi
KINDIA	Samaya	Kondoya
KINDIA	Samaya	Samaya Centre
KINDIA	Molota	Centre Urbain
KINDIA	Mambia	Kakiwondy
KINDIA	Mambia	Tanènè Khaligoro
KINDIA	Bangouya	Tènè à l'Ouest
KINDIA	Damakanya	Damakanya Centre
KINDIA	Damakanya	Foulaya
KINDIA	Friguiagbè	Zone de Kinyaya
KOUBIA	Fafaya	Bassara
KOUBIA	Fafaya	Boussoura
KOUBIA	Fafaya	Yadhiyaabhé
KOUBIA	Pilimini	Centre Urbain
KOUBIA	Gadha-Woundou	District de Timberin
KOUNDARA	Sareboïdo	Zone de Badiar Nord
KOUNDARA	Guingan	Nord-est de Guignan Centre
LABE	Dalein	District de Dalein Centre
LABE	Dalein	Doghi
LABE	Dalein	Kansakoumona
LABE	Dalein	M'Dantawi
LABE	Dara-Labé	Dara Centre
LABE	Dara-Labé	Kouraba
LABE	Dara-Labé	Gaya
LABE	Dara-Labé	Fello Banta
LABE	Garambé	District de Garambé
LABE	Garambé	Secteur de Tyali et Sourirè
LABE	Garambé	District de Seghéu Secteur de Tombon
LABE	Kalan	Kalan Centre
LABE	Kalan	Missi de tiga
LABE	Kouramangui	Kouramangui Centre
LABE	Noussy	Zone de Koundjéya
LABE	Tountouroun	Zone Ouest

PITA	Donghol touma	District de Boullèrè
PITA	Timbi Madina	District de Tokosséré
PITA	Ley Miro	Zone de Diounkoun
PITA	Ninguélandé	Wendou
PITA	Ninguélandé	Boumouri
PITA	Maci	Districts du plateau
PITA	Maci	District de Maci Centre
PITA	Maci	Palaga
PITA	Maci	Une partie de Dantary
PITA	Gongorè	District de Gongore Centre
PITA	Gongorè	Thehel
PITA	Gongorè	Dinguel
PITA	Gongorè	Bambela Djindi
SIGUIRI	Commune Urbaine	Au voisinage du centre Urbain
SIGUIRI	Norassoba	Norassoba Centre
SIGUIRI	Norassoba	Sorokona
SIGUIRI	Norassoba	Gbeinkono
SIGUIRI	Norassoba	Fandia
SIGUIRI	Siguirini	Tomba
SIGUIRI	Siguirini	Diguiling
SIGUIRI	Kintiian	Kintinian Centre
SIGUIRI	Kignébakoura	Kignébakoura
SIGUIRI	Kignébakoura	Niandankoro
SIGUIRI	Kignébakoura	Siguiri
SIGUIRI	Kignébakoura	Doko
SIGUIRI	Kignébakoura	Franwaliah
SIGUIRI	Kignébakoura	Maliah
SIGUIRI	Kignébakoura	Siguirini
SIGUIRI	Kignébakoura	Bankon
TELIMELE	Tarihoye	Balaki
TELIMELE	Missira	District de Guémé
TELIMELE	Gougoudjé	District de Missidé Kebou (Yirka)
TELIMELE	Daramagnaki	Diandian
TELIMELE	Brouwal	Brouwal Centre
TOUGUE	Fello Kounoua	Nyawéli
TOUGUE	Kansangui	Au centre de Kansagui
TOUGUE	Koïn	District de Kaffa
TOUGUE	Kollet	Zones de Kirfi
TOUGUE	Kollet	Dabalaya
TOUGUE	Kollet	Lagui
TOUGUE	Kollet	Kollet Centre
TOUGUE	Konah	Konah Centre
TOUGUE	Tangaly	District de Barita
DALABA	Commune Urbaine	District de Diaguissa
DALABA	Commune Urbaine	Dalaba Centre
DALABA	Bodié	Boko
DALABA	Ditinn	Ditinn Centre
DALABA	Ditinn	Fougoumba
DALABA	Kouala	Koin
DALABA	Kouala	Hènèrè
DALABA	Kouala	N'Dantari
DALABA	Kankalabé	Tioro
DALABA	Kébaly	District de Kebaly Centre
DALABA	Koba	Koba Centre
DALABA	Koba	Zone de Lélé
DALABA	Mafara	Mafara Centre
DALABA	Mafara	Kéyiguia
DALABA	Mitty	Mitty Centre
DALABA	Mitty	Fonforyah
DALABA	Mitty	Sebhory
DALABA	Mitty	Bindi
DALABA	Mombéya	Tyountourou
DABOLA	Bissikrima	Boubèrè

DABOLA	Bissikrima	Bassi (District Sampolia)
DABOLA	Kankama	Bouka
DABOLA	Kankama	Sackola
DABOLA	Banko	Banko Centre
MAMOU	Boulliwel	Sud-est de Boulliwel Centre
MAMOU	Boulliwel	District de Loopy
MAMOU	Boulliwel	District de Kelliwol
MAMOU	Boulliwel	District de Laapouwol
MAMOU	Dounet	Zone de Horè Samar
MAMOU	Gongoret	Gongoret Centre
MAMOU	Gongoret	Kourou
MAMOU	Gongoret	Poukou
MAMOU	Kégnéko	Plateau Central situé entre la vallée du Bafing et celle de la Koba (Kegneko Centre)
MAMOU	Konkouré	Zone de Tamagaly
MAMOU	Konkouré	Wanka
MAMOU	Niagara	Zone de Labico Centre
MAMOU	Ouré Kaba	Zone du centre (Diandian, Kaba Centre et Madina sur la national Mamou-Faranah)
MAMOU	Porédaka	Dar es salam
MAMOU	Porédaka	Bhouriya
MAMOU	Saramoussaya	Sokotoro (District de Kénéwol
MAMOU	Soya	Nobé
MAMOU	Teguérèya	Zone de Brouwal missidé
MAMOU	Teguérèya	Kollen
MAMOU	Timbo	District de Diafouya
KÉROUANÉ	Sibiribaro	Sud de la sous-préfecture
KÉROUANÉ	Sibiribaro	sud-est ``a la frontière de la prefecture de Macenta
KÉROUANÉ	Soromaya	Zones à exploitation minière
KÉROUANÉ	Soromaya	District de Falonko Warou
KÉROUANÉ	Soromaya	Sircoulou
KÉROUANÉ	Konsankoro	Secteur de Maïkoun
KÉROUANÉ	Banankoro	Banankoro Centre
KANKAN	Batè Nafadji	District de Batè Nafadji
KANKAN	Batè Nafadji	District de Bakonko
KANKAN	Batè Nafadji	District de Cissela
KANKAN	Batè Nafadji	Distirct de Madina
KANKAN	Batè Nafadji	District de Dalaba
KANKAN	Batè Nafadji	District de Moussaya
KANKAN	Tintioulen	Côté Kankan
KANKAN	Sabadou Baranama	Baranama Centre
KANKAN	Moribaya	Village de Dalakan
KANKAN	Moribaya	Morodore
KANKAN	Moribaya	Moribaya
KANKAN	Moribaya	Gbalako
KANKAN	Mamouroudou	District de Kariardon
KANKAN	Koumban	Bordure du Fleuve Milo
KANKAN	Gbèrédou Baranama	Zone de Fadou
KANKAN	Boula	Soudianko (District de Karafilila)
KANKAN	Boula	Manianko Manifala
MANDIANA	Balandougouba	Sidikila
MANDIANA	Kinièran	Zone sud (District de Ouroumakoro)
MANDIANA	Koundian	Lollakoro
LELOUMA	Commune Urbaine	Centre Urbain
LELOUMA	Balaya	Dar-es-Salam
LELOUMA	Balaya	Bourouwal Banga (bas fond)
LELOUMA	Lafou	District de Horé Bombi
LELOUMA	Linsansaran	Linsan
LELOUMA	Thiaguel Bori	Le long de la Komba
MALI	Commune Urbaine	Zone de Pakaya
MALI	Balaki	Zone Nord Kopporè
MALI	Balaki	Foulaya
MALI	Lébékérin	District du centre
MALI	Madina Salambadé	District de Denghnèn
MALI	Télirè	District de Télirè centre

MALI	Télirè	Sengueli
MALI	Télirè	Dara-mérè
MALI	Télirè	Dar es Salam
MALI	Touba	Guinyi guinyi
MALI	Touba	Koré nyaki
MALI	Fougou	District Famantong
MALI	Yambering	MBâra
MALI	Yambering	Doghol
MALI	Yambering	Yambering Centre
MALI	Yambering	Horé Soré
MALI	Yambering	Kalein
MALI	Hidayatou	District de Kounda
BEYLA	Commune Urbaine	Beyla Centre
BEYLA	Commune Urbaine	Doukoréla
BEYLA	Boola	Kamana
BEYLA	Boola	Sogbèni
BEYLA	Fouala	Fouala Centre
BEYLA	Diaraguerela	Diaraguerela Centre
BEYLA	Komadou	Komadou centre
BEYLA	Sokourala	Sokourala Centre
BEYLA	Sinko	Sinko Centre
BEYLA	Sinko	Bélikoro
BEYLA	Diassodou	Diassodou Centre
BEYLA	Moussadou	Moussadou Centre
BEYLA	Moussadou	Wanènö
BEYLA	Gbéssoba	Massala
BEYLA	Gbéssoba	Tinkoro
LOLA	Bossou	Bossou Centre
LOLA	Bossou	Kokota
LOLA	Bossou	District Gbénémuo
GUEKEDOU	Bolodou	Secteur de Ouéndé
GUEKEDOU	Bolodou	Boumboukoro (dans Kongom)
GUEKEDOU	Bolodou	Bolodou Centre
GUEKEDOU	Fangamadou	District de Kolomba
GUEKEDOU	Guéndémbou	Dandou
GUEKEDOU	Guéndémbou	Beindou
GUEKEDOU	Guéndémbou	Badala
GUEKEDOU	Tékoulo	Zone de Koma
YOMOU	Banié	Banié Centre
YOMOU	Banié	Mélékpoma
YOMOU	Bhèta	Secteur de Kpaolé Centre
YOMOU	Bhèta	Ditrict de Kpaoli
YOMOU	Bignamou	Zone de Nawèè
YOMOU	Bignamou	Kpoo
YOMOU	Diéké	Zone de Baola
YOMOU	Diéké	Zone de Soopa
YOMOU	Pélah	Zone de Galaye
YOMOU	Pélah	Zone de Yönah